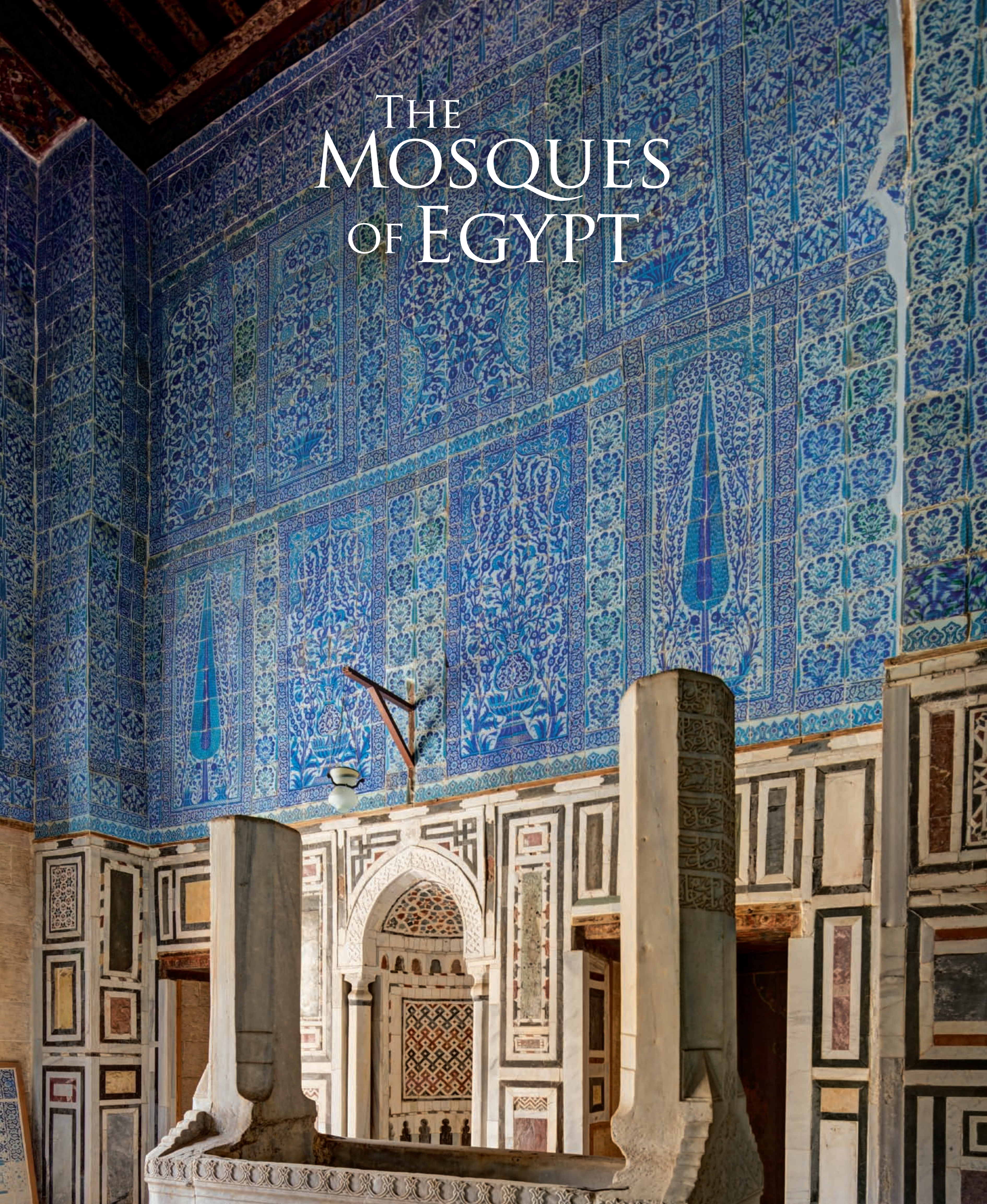
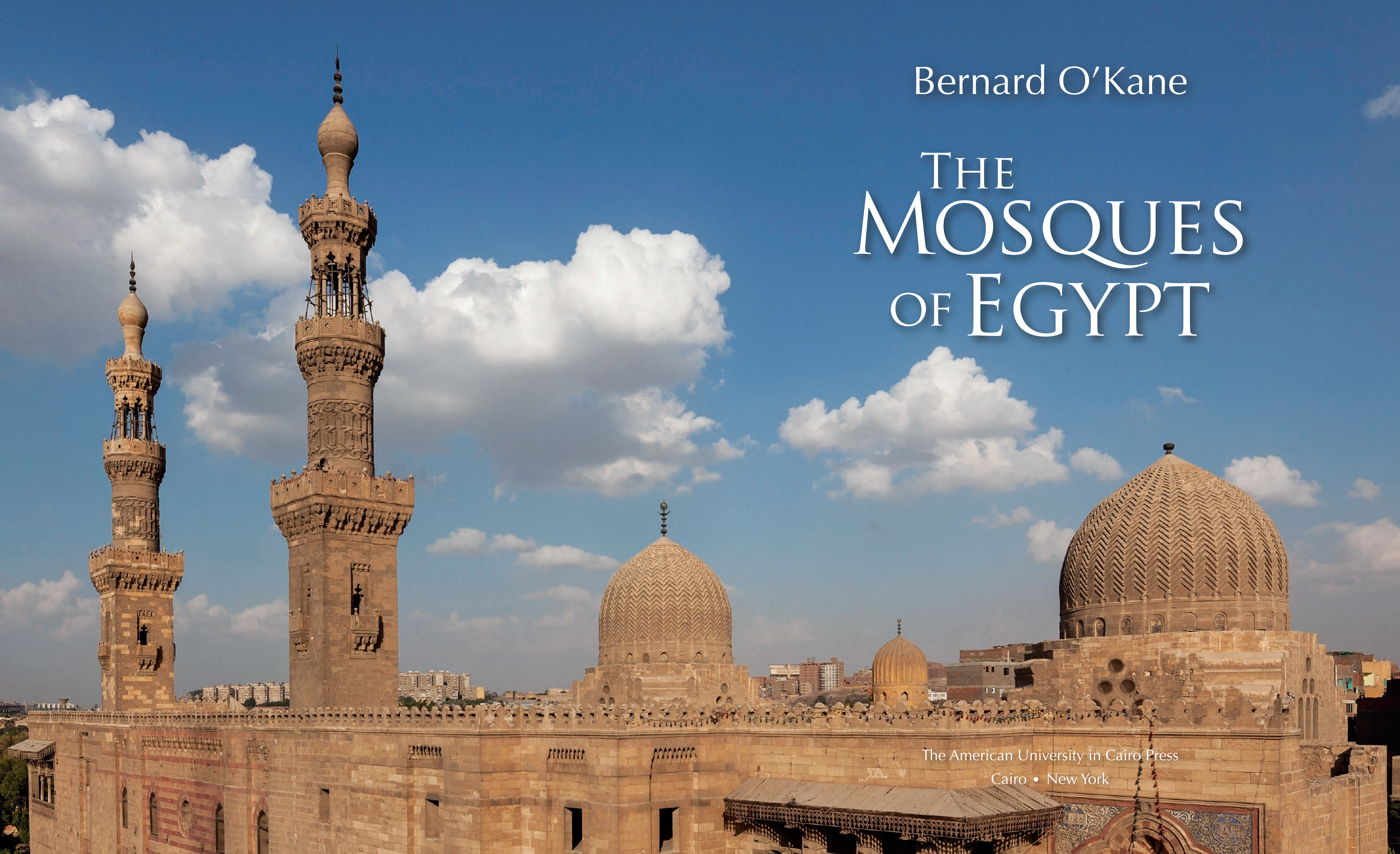
THE MOSQUES OF EGYPT





Bernard O'Kane

THE MOSQUES OF EGYPT

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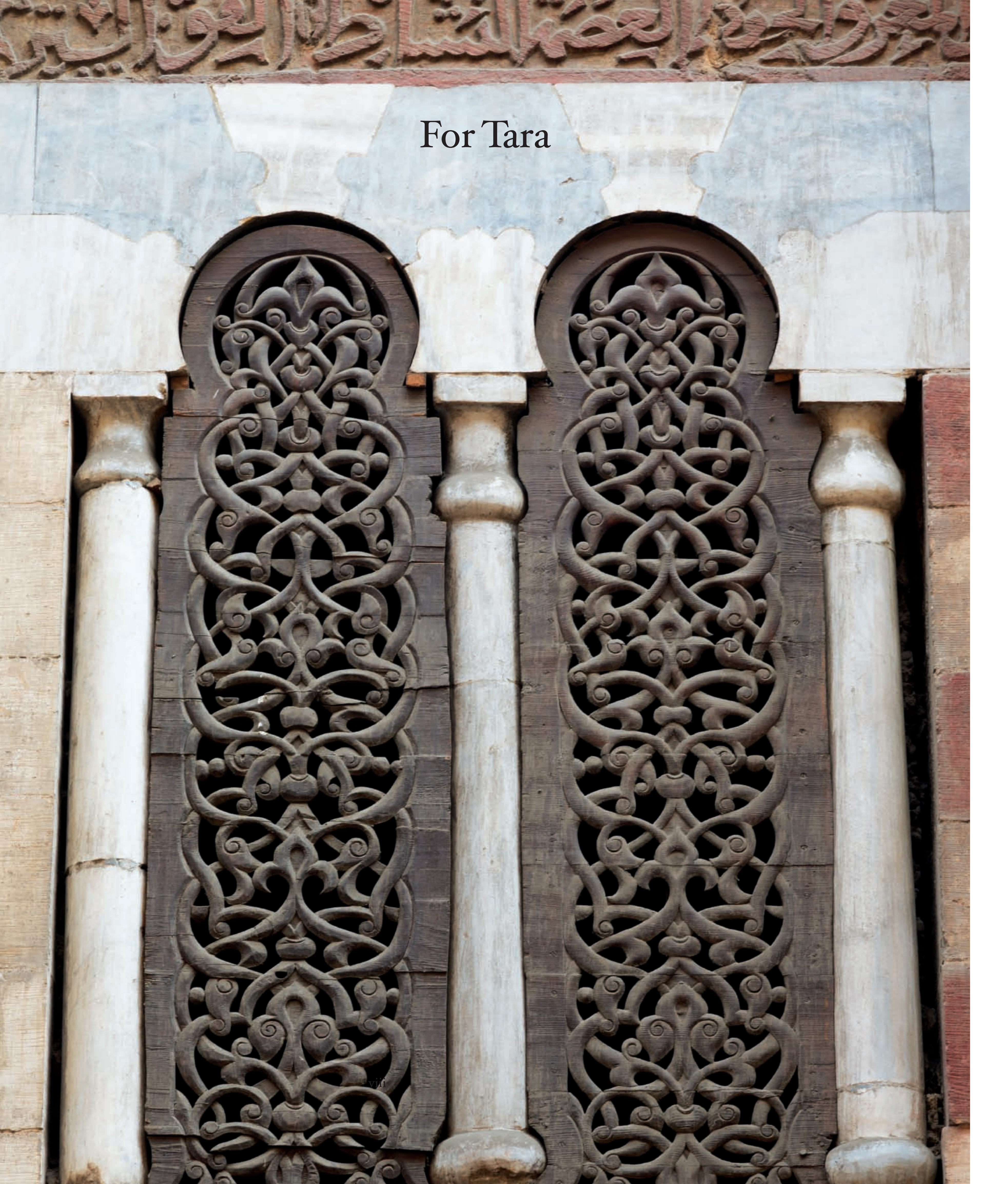
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For Tara

Preface and Acknowledgments

Cairo is famous throughout the Islamic world as the home of al-Azhar Mosque and University, for the Tomb of Imam al-Shafi'i (one of the founders of the four legal schools of Islam), and for its hundreds of historic mosques. While it is fortunate to have this embarrassment of riches, it made narrowing down the choices for the Cairo entries in this book problematic. The main criterion for selection has been the aesthetic quality of the building.[1] Other criteria suggested the inclusion of mosques of historic importance, such as that of 'Amr (the earliest mosque in Egypt); those of particular religious significance, such as Sayyidna al-Husayn, a place of popular pilgrimage; and some interesting out-of-the-way monuments that have been unduly neglected, such as the Sadat al-Wafa'iya Shrine. And while the majority of examples come from the medieval period and earlier, chronological balance necessitated representative mosques of the Ottoman and modern periods. Geographic balance was also a factor. Although Cairo is exceptional in Egypt as being the almost exclusive recipient of royal or imperial patronage, there are sufficient examples of quality elsewhere that merit a book that more accurately reflects the diversity of the country. In the final total, around one-third of those selected are outside of Cairo. In fact beyond Cairo there are few remains of pre-modern Islamic monuments other than mosques,[2] which means that the topic can provide an introduction to Islamic architecture in Egypt as a whole.

Most of the mosques in this book are still in use and are under the administration of the Ministry of Waqfs, for whom historical or aesthetic considerations matter less than practical ones. The addition in recent decades of lights (including chandeliers and fluorescent lamps), ceiling fans, wall fans, floor fans, air conditioners, water coolers, curtains, electric cables, clocks, carpets in the courtyard, plastic chairs, and temporary or permanent roofs over courtyards may detract from the original appearance of the monument. The great majority of the photographs were taken by me especially for the book, but in some cases I have used older photos (both mine and those of others) that show the monuments without some of these additions.

The book was conceived as a companion volume to AUC Press's *The Churches of Egypt*, which was predicated on the breadth of its geographic and historical coverage and the appeal of photographs reproduced on a large scale to a broad audience. These

considerations are also at the forefront of this volume, although here I have incorporated plans for every monument (some of them newly commissioned), to widen its appeal to the broader scholarly community.

I have been fortunate to call Cairo my home for over thirty-five years. I have witnessed some buildings rescued from dilapidation in this period, even as the city threatened to engulf their surroundings. At the same time, I have also been able to travel extensively throughout Egypt. I have had the cooperation of many colleagues in studying its art and architecture. The late Laila Ibrahim generously guided me on my first steps, frequently in the genial company of the current doyenne of Cairo architecture, Doris Behrens-Abouseif, whose works have been so helpful for my own. My innumerable field trips to the monuments with the students at the American University in Cairo were as much a learning experience for me as for them. I also benefited greatly from working with colleagues on the *Documentation of the Inscriptions in the Historic Zone of Cairo* project. The Supreme Council of Antiquities (now the Ministry of State for Antiquities) and its many directors over the years have been generous in granting me the permits necessary for my research; the cooperation of local officials in neighborhood SCA offices has also been invaluable. My home institution, the American University in Cairo, generously provided a research grant as the beginning of this project and its library staff have as usual gone out of their way to assist me. I am grateful for more specific help from many individuals, including Mohamed Abd al-Latif, Imam Abdulfattah, Diaa Elkarem, Ehsan Abushadi, Nagla Ahmad, Jere Bacharach, Dina Bakhoum, Doris Behrens-Abouseif, Rami El Dahan, Tara Garcia, Nairy Hampikian, Hani Hamza, Passant Hendy, Ah[illegible] Hussein, May al-Ibrashy, Hossam Isma'il, Bassem Khattab, Ahmed ElLeithi, Magda Mostafa, Hend Nadim, Ola Seif, Heba El Toudy, and Nicholas Warner, who redrew many of his plans for this book. I also thank Neil Hewison of AUC Press, who first suggested that I undertake this commission. Others at AUC Press who have contributed include Nadine El-Hadi, managing editor, Miriam Fahmi, production manager, and Andrea El-Akshar, designer.

Introduction

What is a Mosque?

> Whenever the time of prayer comes, pray there, for that is a mosque.
> (The Prophet Muhammad)[3]

The word mosque is derived from the Arabic *masjid*, meaning a place of prostration. The other main word used is *jami'*, meaning a congregational or Friday mosque. As can be seen from the above saying of the Prophet Muhammad, there are no architectural requirements for prayer, making the definition of a mosque as a building a difficult if not impossible task.

In many Islamic countries, but perhaps especially in Egypt, the multiplicity of building types in which prayer was regularly carried out cautions against any attempt to apply a narrow definition. One of the simplest ways to recognize a place where prayer is encouraged is to look for the presence of a mihrab, a niche, frequently decorated, in the qibla wall. There have been various interpretations of the meaning of the mihrab. Popular opinion has it that it serves to identify the qibla wall in a mosque, but its frequent invisibility from most areas within the building makes this unlikely. The form was an honorific one in the pre-Islamic world, and many early sources report that its first appearance was in the enlargement of the Mosque of Madina by al-Walid in the early eighth century. There it was not in the center of the qibla wall, but marked the spot where the Prophet had led the prayers as the imam of the first Muslim community.[4] It has been suggested that it reflected the throne niche of pre-Islamic palaces,[5] but its subsequent appearance not only in congregational mosques but also in all neighborhood mosques implies that it served to commemorate the Prophet in his role as the first imam, the leader of the community in prayer. Its intimate connection with prayer then led to its being incorporated into other buildings such as mausoleums.[6] This latter option became more common where crypts were introduced into mausoleums, letting designers designate the main story as an oratory, and so lessening the objections of some religious scholars to the building of mausoleums in the first place.[7] In Egypt the preference for a multiplicity of mihrabs is indeed first apparent in Fatimid mausoleums, and the slightly later Ayyubid Mausoleum of Imam al-Shaf'i

even has a fourth mihrab, correcting the orientation of the earlier triple-mihrab. Another indication of the importance of not just private but communal prayer in shrines is the number of portable wooden mihrabs made for them; they must have been needed when the attendees spilled out on to the areas adjoining the shrine.[8]

Some of the basic tenets of Islam have traditionally been described as its Five Pillars. The first is the *shahada*, bearing witness that there is but one God and that Muhammad is His prophet. Not surprisingly, this is one of the most common inscriptions found on mosques. The second is the requirement to pray five times a day. The centrality of prayer is reflected in the preponderance of neighborhood and congregational mosques in the Islamic world. Muslims are encouraged to pray together, but this is obligatory only at the noon prayer on Fridays. It was desirable that a mosque should be able to accommodate all of the local inhabitants, so clearly there was a need for large buildings in many towns. However, washing is necessary to achieve a state of ritual purity, so ablutions facilities were a normal adjunct to mosques. The call to prayer was given by the sound of the human voice, originally from the rooftop of the mosque. The benefit of tall towers for this purpose, both to aid the dispersion of the call and to advertise the presence of mosques, soon led to minarets becoming standard features of larger mosques, although exactly when this happened in Egypt is a matter of dispute.[9] In congregational mosques a sermon *(khutba)* preceded the prayer, during which the imam sat on a minbar (pulpit); these, usually made of wood, attracted some of the finest craftsmanship of the day.

Another pillar of the faith was the requirement to perform the pilgrimage to Mecca. One of the unexpected consequences of this was the ease with which ideas, including artistic innovations, were quickly spread across the Islamic world. Artists and craftsmen who made the pilgrimage increased their opportunities for contacts. They may already have traveled a considerable distance to the Hijaz, and so if patronage had withered in their homeland they could more easily take their expertise to a patron in a neighboring country. We will see many buildings in Egypt that are reflective of forms and styles coming from other areas of the Muslim world, east and west.

Most of the buildings in this book are exclusively or primarily mosques—but in addition, mausoleums, madrasas, *khanqah*s (residences for Sufis), and shrines are also represented here. The distinction between mosques, madrasas, *khanqah*s, and *zawiya*s (small Sufi residences) became very fluid in the Mamluk period; from the second quarter of the fourteenth century, Friday prayer began to be permitted not only in some of those institutions but even in *turba*s (funerary complexes) in the cemeteries of Cairo.[10] Prior to the Mamluk period the primary legal school in Egypt was the Shafi'i, which permitted only one Friday mosque in each urban entity. But the Hanafi school, favored by the Mamluks, had no such restriction. The expansion of Friday prayer into multiple institutions is reflected in the number of buildings in Cairo by the end of the Mamluk period in which Friday prayer was permitted: 221 in total.[11] The function of buildings thus often changed over time, and of course, in contemporary Egypt, where Sufis no longer live in *khanqah*s and where religious students are educated in universities, former madrasas and *khanqah*s have become the equivalent of not just *masjid*s, or neighborhood mosques, but also of congregational mosques for much of the population. As noted above, the presence of a mihrab within a monument is an indication that it was intended for prayer, of at least a private nature. This applies to almost all mausoleums, whether the body was buried in a crypt or in the ground well below any grave marker that signaled the presence of a burial. This surprising development is emphasized by endowment deeds that occasionally specifically stated that the dome chambers were designated as *masjid*s, with that of Sultan Hasan, for instance, having its own imam for Friday prayers. Prayer within or in the proximity of mausoleums was encouraged by founders for the spiritual merit *(thawab)* that they could convey for the soul of the deceased. In the case of shrines, the transfer of blessings could also be reciprocal. Pilgrims prayed for the pious intercession of the person buried at the site, but also wished to partake of the grace or blessings *(baraka)* bestowed there on visitors.

This array of building types also reflects the multiplicity of functions that the mosque performed within Muslim society. It was always a place of social gathering, and it was not unusual for commercial transactions to be carried out in it as well. Meals could be eaten within, and some of the major mosques, such as al-Azhar, at times even acquired many permanent residents. Recitations of the Quran or of the hadith were regularly performed, sometimes by personnel appointed in the *waqf*. During Ramadan especially, it was a place of retreat for many inhabitants of a city. Before the rise of the madrasa it was the main place of education, and before the rise of *zawiya*s and *khanqah*s in the thirteenth century, a place for ascetics who preached to their followers. Nasir-i Khusraw's description of the mosque of 'Amr in Cairo, which he visited in the middle of the eleventh century, conveys some of this diverse activity:

> Inside there are always teachers and Quran-readers, and this mosque is the promenade of the city, as there are never less than five thousand people – students, the indigent, scribes who write checks and money drafts, and others.[12]

Early Islamic Egypt to the End of the Ayyubids (640–1250)

Byzantine rule in Egypt had already been considerably weakened by the beginning of the seventh century, when the Sasanians launched a successful invasion of Syria and Egypt. They were forced to retreat, but it was only in 628 that the Byzantine emperor Heraclius succeeded in gaining back the territory that had been lost. Heraclius celebrated his return to power in Egypt by appointing Cyrus, formerly a bishop of Phasis in the Caucasus, to rule from Alexandria. Cyrus was a militant Diophysite, a follower of the orthodox Byzantine interpretation of the two natures of Christ, unlike the Copts who followed the Monophysite party. This had major consequences following the astonishing early conquests of the Muslim armies in Syria. The Muslim general 'Amr ibn al-'As took complete control of Egypt in the short span of three years, from 639 to 642. The ease with which he was able to do this may partly be attributed to the divided loyalties of the Copts, who formed the bulk of the rural population, as to whether they should be ruled by their persecutors, the Byzantines, or a new conquering power.[13]

ʿAmr established his capital at Fustat beside the old Byzantine fortress of Babylon, now the heart of what is today called Coptic Cairo. It was here that he built the first recorded mosque in Egypt. The present mosque has been so altered that almost nothing of the pre-modern building has been preserved. However, we have considerable knowledge of its earlier gradual enlargements from written sources and previous studies of the building. From the beginning and through its many alterations its plan has been what is called Arab hypostyle, one in which a courtyard is surrounded by arcaded bays supported on columns. This plan remained the basis of mosque design in Egypt for centuries, so it is worth asking where the design came from.

For this, we need to go back to Madina at the time of the Prophet Muhammad. Muhammad and his followers had made a migration *(hijra)* to Madina in 622, a date so important that it marks the beginning of the Muslim calendar. The preeminent building associated with the Prophet had a very large open courtyard, with shade on the side facing Mecca provided by two rows of palm trunks covered with thatched palm leaves. It was here that Muhammad led the first Muslim prayers. Another smaller shaded area on the north was roofed in the same way. Near the courtyard were houses in which Muhammad and his wives lived. Although some earlier scholars thought of this as Muhammad's house, which was coincidentally used as a mosque, more recent scholarship has stressed that it was intended as a mosque from the outset.[14] The importance of this structure in the communal memory of the Muslim community would help to explain why so many early mosques adopted the plan of a courtyard building with a roof supported by columns on the side facing Mecca.

There is very little information on other mosques in Egypt before that of Ibn Tulun. The ʿAbbasids settled in a new location north of the town of Fustat called al-ʿAskar, although it never replaced the previous settlement. As was the case in some earlier Muslim foundations, such as Basra, al-ʿAskar included a governor's palace *(dar al-imara)* and a congregational mosque adjacent to it. This, the Jamiʿ al-ʿAskar, was built in 786, but we have no information on what it looked like, either from descriptions or archaeological remains.

A major shift in Islamic Egypt occurred with the governorship of Ahmad ibn Tulun, beginning in 868. By this point, the ʿAbbasids, ruling from Samarra, north of Baghdad, had been concerned for some time with putting down revolts in Iraq and with the rebellion of the Saffarids, rulers of eastern Iran. The caliphate itself had been weakened through its manipulation by the Turkish troops who formed the most powerful section of the ʿAbbasid army. They were resident in Samarra, and Ibn Tulun rose to prominence from their ranks. After Ibn Tulun became governor of Egypt, he soon had to raise a large number of troops to put down rebellions in Palestine and Syria, and having wrested control of the finances from the ʿAbbasid administrator he extended the boundaries of his authority as far as the borders of Iraq. In 877, the caliph dispatched an army to replace Ibn Tulun, but there were insufficient funds to pay the caliph's soldiers, who returned to Iraq without having fought a battle. Thus began Ibn Tulun's autonomous rule, one that was marked by sound financial administration and particularly by investment in irrigation, improving agricultural yields.

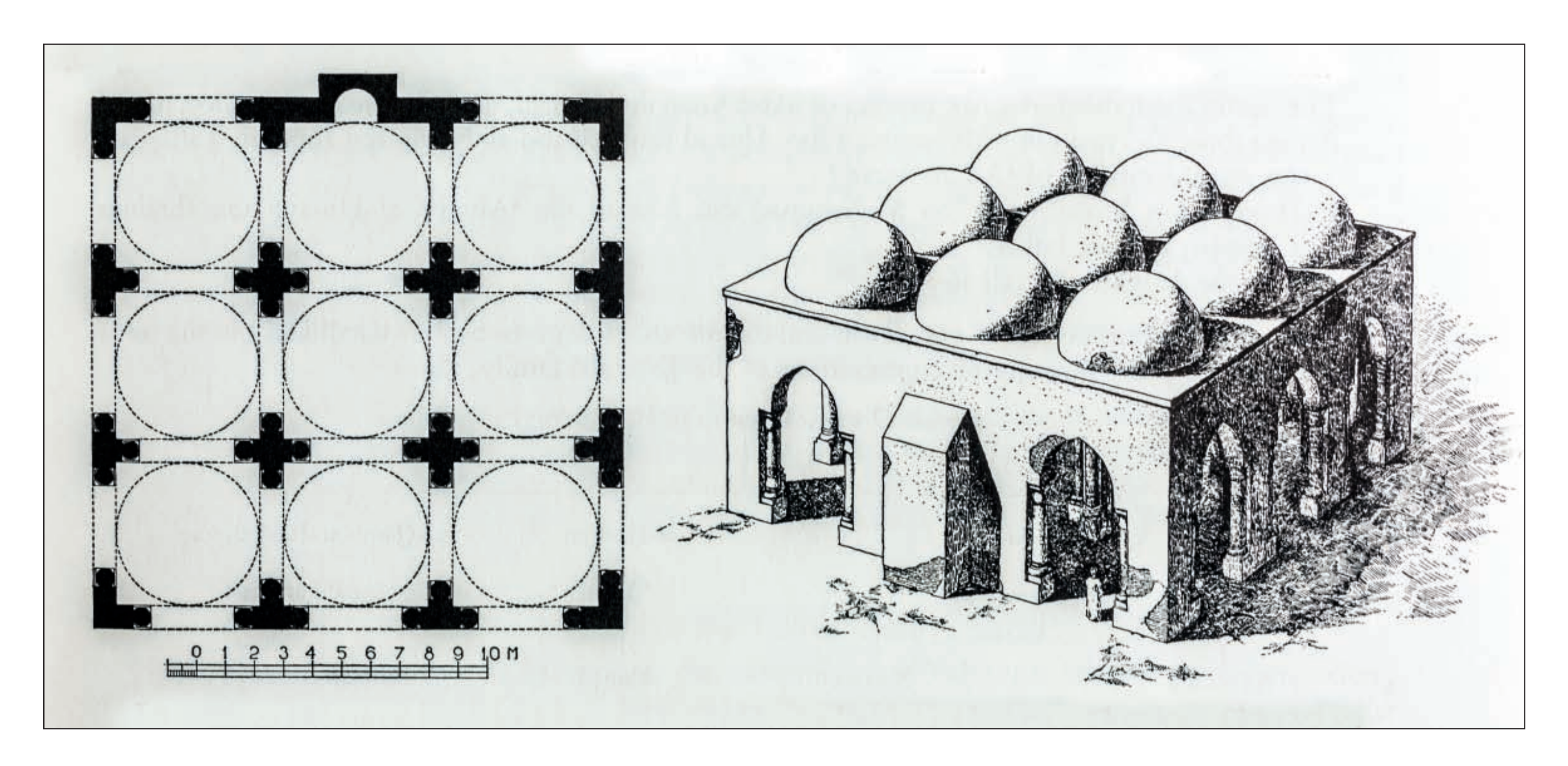
One of the reasons for the ʿAbbasid caliphate's move from Baghdad to Samarra was the disruption caused by the Turkish troops. Similar complaints were made about Ibn Tulun's large contingent of Turkish troops, and may have been a factor in his decision to build a new city at al-Qitaʾiʿ, north of the two previous foundations. His ability to build on a large scale was also facilitated by the fact that he no longer had to send any but a nominal tribute to Baghdad.

His mosque at al-Qitaʾiʿ is the earliest surviving one in Egypt that is mostly intact. Medieval historians credit a Christian architect with designing the piers of the building so that Christian churches would not have to be destroyed for their columns (as may have been the case at the mosque of ʿAmr). This is clearly an attempt to explain the novelty for Egypt of using piers instead of columns, but in Samarra, bereft of stone, this technique was the norm for mosques. Other features such as the *ziyada*, the helicoidal minaret (even if the current one is a Mamluk replacement), and the style of the stucco all point to an architect familiar with Ibn Tulun's ʿAbbasid heritage. This is also an early example of what was to become a familiar feature in Cairo and Egypt: the adoption and adaptation of traits from outside the area. While this is a characteristic of virtually all major regions, Cairo's prestige as a center of patronage proved a lure for craftsmen from the main centers of the Islamic world.

Little is known about other mosques in this period before the coming of the Fatimids, but one very different form can be identified from various sources: the nine-bay type. The plan was used in diverse pre-Islamic contexts, and proved to be very popular not just in the early period but throughout the history of Islam. It consists of a square room with four evenly spaced supports dividing the interior into nine equal spaces. The reasons for its perennial appeal are several. Its three-by-three bays create a plan of perfect symmetry, always a pleasing aesthetic consideration. In terms of practicality, it is a very economical way of roofing a space with a minimum number of supports. It is true that the most economical solution would be one column that would produce four bays of equal size, but this has the ugly result of encumbering the center of the room. This would be particularly unfortunate in a mosque, where the column would block the view of a centrally placed mihrab.[15]

At Raya, near the southern tip of the Sinai Peninsula, there is a sixth-century fort that was altered in the ninth to tenth century to include a mosque.[16] Three of its walls are aligned, like the earlier fort, on the cardinal points, while the fourth, the qibla side, is inclined slightly toward the southeast, making the building marginally trapezoidal in plan. It had four one-meter-diameter pillars that divided the interior into nine almost equal bays. The excavators uncovered painted decoration on plaster of vegetal motifs, inscriptions, and, in a frieze along all the walls, a series of rosettes.

In the southern cemetery of Cairo are the remains of the Tomb of al-Sharif Tabataba (d. 943), a building that medieval pilgrimage guides describe as both a shrine *(mashhad)* and a *masjid*.[17] It may date from around the middle of the tenth century, around the date of death of the supposed occupant. When K.A.C. Creswell surveyed the building, the walls stood only to a level of around one meter high. His restoration of cross arcades is suggested by the central cruciform piers, although the "domes" above



Tomb of al-Sharif Tabataba (tenth century), reconstruction (after Creswell)

this that Creswell drew could equally have been tunnel vaults or groin vaults.[18] The entrances are at least certain: three on each side with the exception of the qibla, which had a mihrab in the central bay—a plan identical to that of the earlier Bab al-Mardum Mosque at Toldeo in Spain, dated to 1000.[19]

The Fatimids (909–1171) were able to establish one of the longest-lasting Shi'i states in the Middle East. They claimed descent from the Prophet's daughter, Fatima, the wife of 'Ali and the mother of Hasan and Husayn—all figures of great reverence for Shi'is. An emissary of the Fatimids was able to convert the Berbers of Tunisia to their cause and to overthrow the Aghlabids, who had previously governed on behalf of the 'Abbasids. The Fatimid ruler, 'Abd Allah al-Mahdi, was then enthroned in 909. Al-Mahdi (his name means the Rightly-Guided One) declared himself caliph in opposition to the 'Abbasids, putting an end to the semblance of unity that had prevailed in Muslim polity until then. He built a new capital named Mahdia after himself, furnishing it with a palace, a harbor, and a congregational mosque that was to be important in its shaping of later Fatimid religious buildings in Egypt.

The Fatimids' ultimate goal was to supersede the 'Abbasids, and they made several probing raids toward a much richer prize: Egypt. In 969, they finally succeeded in overthrowing the 'Abbasid governors there, and consolidated their position by expanding into Syria. Their prestige also greatly increased with subsequent control of the holy cities of Mecca and Madina in the Hijaz, although they were never able, as they had hoped, to push on to Baghdad and eliminate the 'Abbasids.

In Egypt, the Fatimid ruler al-Mu'izz founded a new princely city, naming it al-Qahira (the triumphant), the name from which Cairo and its synonyms in other European languages are derived. Al-Qahira is also the name used for the modern city of Cairo. This city was exclusively for the rulers and their followers; the common people continued to reside in Fustat farther south, from where they would have commuted by donkey to serve in al-Qahira. At the centre of the new city was the royal palace, and near it to the southeast was the Mosque of al-Azhar (972).[20] The mosque borrowed from Mahdiya doubled columns in the transept and the dome in front of the mihrab, although the stucco that decorates its walls is of purely Egyptian invention.

In 976, Durzan, the wife of al-Mu'izz and the mother of the new imam-caliph, al-'Aziz, built the second Fatimid mosque that we know of in Egypt, in partnership with her daughter, Sitt al-Malik. This, the no longer extant Jami' al-Qarafa, was situated in the cemetery between Fustat and Cairo. Whether this location was chosen to promote the Isma'ili cause among the inhabitants of Fustat or because a female patron was not permitted to build in the urban enclosure of Cairo is not clear; at any rate, her mosque proved popular with the whole Fatimid establishment, becoming a favorite place in which to pass Friday evenings. In the summer the courtyard, and in the winter the prayer hall near the minbar, were used for socializing, eating, and sleeping.[21] We also have more specific information about the building, which was supposedly based on al-Azhar Mosque. Its entrance portal, probably projecting, had a door revetted with iron plaques. Above it was a minaret.[22] Although we cannot be certain, these features were probably also present at al-Azhar. While the mosque at Mahdiya did not have a minaret, it being proscribed by earlier Fatimid legal texts, in Egypt the Fatimids evidently saw the need to compete for the skyline with the towers of Christian churches, more frequent in Egypt than in Ifriqiya (modern Tunisia). In al-Qarafa Mosque, Maqrizi particularly singles out the colorful painted decoration of the ceiling for praise, reminding us of how much is missing from the surviving pre-Mamluk mosques.

Al-'Aziz himself in 990 began the mosque outside Bab al-Futuh that was finished by his successor al-Hakim after a gap of twenty-three years. It was earlier known as the Mosque of al-Anwar, "the brilliant," although it is called the Mosque of al-Hakim today. It remained the largest of the Fatimid mosques, and even increased in size with the addition of a *ziyada* erected by al-Hakim's successor, al-Zahir.[23] Its layout combined much from the two major previous Cairene mosques, borrowing the piers with engaged columns from Ibn Tulun, and the clerestory and dome above the mihrab from al-Azhar.[24] However, its two extra domes on the qibla side, and its two minarets on the opposite side, were novel.

Al-Hakim also erected major mosques at al-Maqs (modern Bulaq in Cairo), and at al-Rashida near Fustat. In 1005, he led prayers at the end of the Ramadan fast at the Rashida Mosque, the procession there being made more memorable for the six horses with jewel-studded saddles, six elephants, and five giraffes that preceded it.[25] This mosque also seems to have had a minaret with, like that at the Mosque of al-Hakim, the name of its founder prominently displayed on it.[26]

During the long reign of the caliph al-Mustansir (1036–94), there were insurrections and fighting between Berber, Turkish, and Sudanese troops, accompanied by famine in the years 1062–72. Al-Mustansir called on the vizier Badr al-Jamali, governor of Acre in Palestine, to restore order in 1073. Al-Jamali, known as the amir al-Juyushi, brought his troops with him and was singularly successful in routing the various factions.

However, there was a price to pay: henceforth, the vizier had almost as much actual power as the caliph. Badr al-Jamali was an active patron, building the new stone walls around Cairo with its famous gates of Bab al-Futuh, Bab al-Nasr, and Bab Zuwayla, as well as the Shrine of al-Juyushi. He also erected a mosque at the Nilometer, where the Monasterly Palace now stands. Its hypostyle plan was recorded in the *Description de l'Egypte*, although since it was restored by the Ayyubid sultan Najm al-Din it is not clear how much should be attributed to Badr al-Jamali. The *Description* also recorded an inscription of Badr al-Jamali on the outer wall facing the river traffic, in which his name was visible in letters nearly a meter high—at the time, a novel way to advertise the munificence of a patron.[27]

Portable mihrab from the shrine of Sayyida Ruqayya, Cairo (1154–60), Museum of Islamic Art, Cairo



Al-Juyushi's shrine on the Muqattam cliffs bears a strong resemblance to the later Shrine of Sayyida Ruqayya (1133), except that the latter's courtyard has disappeared. It is worth noting that the mausoleums erected by the Fatimids in their propagandizing zeal[28] almost always included mihrabs, and many even had multiple mihrabs. The Shrine of Sayyida Ruqayya, for instance, has five surviving mihrabs, and even had a further, portable mihrab, presumably for use in the adjacent street or open space on feast days when the crowds could not be accommodated within the shrine. The mausoleum of Ikhwat Yusuf even has a triple mihrab on the qibla wall, a feature also found in the Ayyubid Shrine of Imam al-Shafi'i.

The nine-bay plan mentioned above continued to be part of Fatimid architecture. At Aswan, the Shrine of the Sab'a wa Sab'in Wali (seventy-seven governors, eleventh century) is now known only from its plan, the original having been destroyed in 1901. It had cross arcades surmounted by nine domes, and a projecting mihrab on the qibla side. There was one entrance opposite the qibla, and another in the middle of the east side. It is not known whether the adjacent minaret was contemporary, but it showed that the building functioned as a funerary mosque. A related plan is that of the Mashad al-Qibli, or Bilal, near Shillal, also probably eleventh century.[29] This has a plan of six domed bays, with the three on the qibla side each having a mihrab. Here too a minaret, in this case certainly original, was adjacent to the prayer hall.[30]

Another mosque that was considered to have this plan was the Jami' al-Fiyala built near Birkat al-Habash in Cairo, founded by al-Afdal, the son of Badr al-Jamali, dating from 1104.[31] Maqrizi states that there were nine specially decorated domes at its highest point on its qibla side.[32] Some earlier discussions of this monument have assumed that the mosque contained nine domes and nothing else. However, Maqrizi's statement could mean either that the main (or only) prayer hall had just nine domes, or, more likely—especially with the qualifier "at its highest point"—that only these nine bays had this special form; the parts of the mosque with a lower roof would then have had some other form. This would suggest a nine-bay *maqsura* (royal enclosure) with distinctive vaulting, perhaps analogous to that in the Umayyad congregational mosque of Wasit.[33] This is made more probable by the fact that the Jami' al-Fiyala was a congregational mosque in which Friday prayers were held (Maqrizi specifically mentions its first *khutba*), and that it cost the princely sum of 6,000 dinars. A nine-bay mosque by itself would hardly be big enough to accommodate a large congregation; all the other known Fatimid congregational mosques of Egypt, including those of the much smaller towns of Bahnasa and Qus,[34] had courtyards.

It is only from the end of the Fatimid period that we have two surviving neighborhood mosques, or *masjid*s: al-Aqmar (1125) and al-Salih Tala'i' (1160). Both are significant in different ways. Al-Aqmar was the first of many in the old city of Cairo to have its façade parallel with the street instead of the qibla. Isfahan has two seventeenth-century mosques that exhibit the same dichotomy, but there is really no other city besides Cairo in the Islamic world that displays with such consistency similar concerns with a façade parallel to the street. Al-Aqmar also has Cairo's first façade to display decoration across its entire length, a feature greatly favored in later architecture. The Mosque of al-Salih Tala'i' also has a first in façade decoration in Cairo: continuous open or blind arches across the main and side façades, this too much favored in later architecture. Its entrance bay is novel in being open to the exterior. However, this was probably due to the special requirements of its patron and so was never repeated.

Even before the coming of the Ayyubids, state sponsorship of Shi'ism was greatly weakened by the increasing power of the viziers, who from 1149 onward acted as regents to child caliphs. Some of the viziers now were even Sunni, the first being Ridwan ibn al-Walakhsi, who was also the first to sponsor a new and henceforth vital building type in Egypt: the madrasa. Before becoming vizier, Ridwan had been governor of al-Gharbiya, the province in the west Delta, and his madrasa, for the Maliki school, was founded in 1138 in the neighboring city of Alexandria. Egypt's second madrasa was also founded in the same city, in 1151, by another Sunni vizier, Ibn al-Sallar, a former governor of Alexandria.

Just before the fall of the Fatimid dynasty, the Sunni vizier Salah al-Din, better known in the West as Saladin, founded two madrasas in Cairo in 1170. He, together with his uncle, Shirkuh, had previously been in the service of the Zangids, who were originally based in Aleppo. The Zangids expanded westward, and were notable for their victories against the Crusaders. The dynasty's founder, Zangi (r. 1127–46), captured the Crusader city of Edessa in 1144, and his son, Nur al-Din (r. 1146–74), carried on the struggle in Syria against both the Crusaders and the Fatimids. Despite this, the Fatimids sought Nur al-Din's help in warding off Crusader attacks—in 1168 the Crusader king of Jerusalem, Amalric, had succeeded in invading Egypt. In 1169, Nur al-Din gladly sent them his deputy Shirkuh and Shirkuh's nephew, Salah al-Din. By 1171, Salah al-Din was able to depose the Fatimids; he remained in Egypt until Nur al-Din's death in 1174 enabled him to expand his power into Syria.

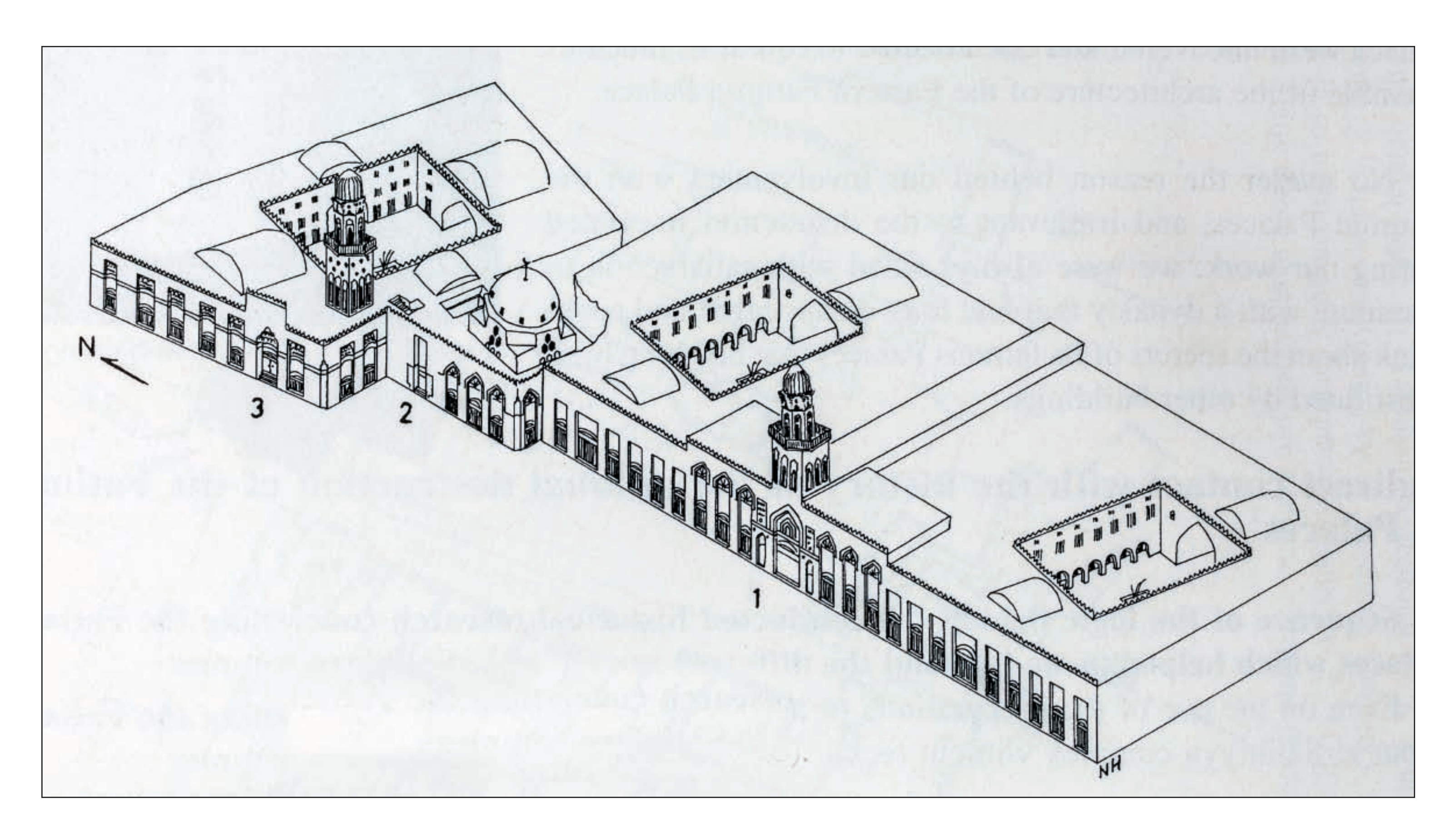
As noted above, Salah al-Din built two madrasas in Fustat in 1170 just before the fall of the Fatimids, but supplemented these in 1177 with a madrasa in the royal Fatimid city of Cairo and, more importantly, one in the Qarafa at the tomb of the saintly champion of religious orthodoxy, Imam al-Shafi'i. Regarding this last-named madrasa, the traveler Ibn Jubayr said:

> Over against it [the Tomb of al-Shafi'i] was built a school the like of which has not been made in this country, there being nothing more spacious or more finely built. He who walks around it will conceive it to be itself a separate town. Beside it is a bath and other conveniences, and building continues to this day.[35]

No less than twenty-five madrasas are known to have been built by the Ayyubids in Cairo or Fustat, but of these we have the remains of only two, the Kamaliya (1225) and Salihiya (1243), both in the center of the old Fatimid city. The primacy of prayer in the latter is shown not only by the mihrabs in its qibla iwans, but also by the prominent minaret that formed a visual climax to the sweep of niches on either side of its façade. Both of these introduce a new element that henceforth was to be prominent in religious architecture in Egypt: the iwan. Both monuments had two-iwan courtyards, paired in the case of the Salihiya.[36] The iwan had earlier been a renowned part of the Fatimid palace, where it designated the main audience hall, but only under the Ayyubids did it become a regular feature of religious architecture, particularly madrasas. In the Ayyubid funerary enclosure *(turba)* of Abu Mansur Isma'il (1216), an iwan (with a mihrab) may have been used as a mausoleum,[37] as in earlier examples in Anatolia. However, this proved to be a failed experiment in Egypt, at least until revived (but even then very rarely) by those more familiar with Anatolian precedents: the Ottomans.

This proliferation of madrasas stands in contrast to Ayyubid policy on mosques. Their adherence to strict Shafi'i orthodoxy meant only one Friday mosque in each urban entity. Accordingly, at Cairo they stopped Friday prayer in al-Azhar and allowed it only at al-Hakim; at Fustat, the Mosque of 'Amr continued in use; all of these were refurbished by the Ayyubids. A handful of smaller mosques were built in this period by non-royal patrons, but none has survived.[38] As we have seen, this class channeled patronage into other institutions such as madrasas.

Another significant Ayyubid development that became the norm in Mamluk Cairo was initiated by Shajarat al-Durr, the wife of the last Ayyubid sultan, al-Salih Najm al-Din (r. 1240–49). She bridges the Ayyubid and Mamluk periods. Her husband died in 1249, and she concealed his death while awaiting the arrival from Anatolia of al-Salih's son and heir Turanshah. The Mamluks were al-Salih's manumitted Turkish slave troops. Fearing that Turanshah would replace them with his own mamluks, they murdered him and appointed Shajarat al-Durr sultana in May 1250. However, on the objection after three months of the Syrian Ayyubid ruler she was compelled to marry Aybak, the atabeg (commander-in-chief) of the army, who thus became the first Mamluk sultan. Shajarat al-Durr continued to sign royal decrees for at least another five years. In 1257, she heard that Aybak was planning to marry the daughter of the



Reconstruction of the Salihiya complex (1242–44) and Madrasa of Baybars, Cairo (1263) (after Hampikian)

Zangid prince of Aleppo, and had him murdered—a step too far, as she herself was killed in retaliation eighteen days later.

The complex that she created was the combination of a mausoleum with another religious institution, already common in Syria at the time. She added a tomb for her husband to the Salihiya Madrasa after his sudden death. It was not envisaged in the original layout, as has sometimes been thought; it occupies part of the space of the former living quarters of the Maliki shaykh of the madrasa. It juts out six meters into the street, an attention-grabbing technique that was used by the later sultans Baybars, Qalawun, and al-Ghawri in their complexes on other parts of the same thoroughfare, the the Qasaba, the main artery of the old Fatimid city.

Shajarat al-Durr also built a complex in the Qarafa al-Sughra, near the earlier shines of Sayyida Nafisa and Sayyida Ruqayya*, consisting of a mausoleum, a madrasa, a palace, and a hammam, of which only the mausoleum survives. Fortunately, in the early nineteenth century Pascal Coste recorded the madrasa in a detailed drawing, enabling us to see that it was a large, lavishly decorated building with a minaret that rivaled that of the Salihiya.[39] The inscription in her mausoleum has titles that suggest that it was drafted between the death of Turanshah (3 May 1250), the short-lived successor of her husband, and the appointment of Aybak as her second husband on

* The proximity of her mausoleum to those of Sayyida Ruqaya and Sayyida Nafisa may have been to profit both from the *baraka* of these nearby mausoleums of noted females and from the possibility of increased visits to her own tomb by pilgrims to those shrines. I would like to thank Jere Bacharach for this suggestion.



Interior from the tomb of Shajarat al-Durr, Cairo (c. 1250): a newly uncovered painted decoration

31 July 1250. However, given the size and components of the funerary complex, it was undoubtedly begun quite some time before this and should be considered an Ayyubid foundation. The mihrab of her mausoleum is of glass mosaic, with a design in mother-of-pearl that reflects her name, "the tree of pearls." Newly uncovered wall paintings in the tomb[40] display arabesque medallions from which emerge elegant Pharaonic lotuses, a stunning confirmation of the quality of the complex.

Mamluk Egypt (1250–1517)

The Mamluks went on to control the Arab core of the Middle East—Egypt, Syria, and the holy cities of Mecca and Madina in the Hijaz—for a long time. They were Turks, usually from the Kipchak Steppes near the Caspian Sea, recruited as boys who were brought up as Muslims in the Cairo citadel, trained as cavalry, and manumitted. Having severed all family ties, they would be, at least in theory, fiercely loyal to their masters. However, it frequently happened that on the death of a sultan a nominal successor would be appointed while amirs jockeyed behind the scenes to see who could muster the most support. The efficacy of the system is demonstrated by their lengthy tenure of over 250 years, during which they were the principal power in the Middle East.

The first major Mamluk sultan was Baybars (r. 1260–77), who secured the future of the dynasty by energetically warring on two fronts, against the Mongols and the Crusaders. These campaigns took place in Syria, and served to rally the disparate segments of the population there to his cause. He is estimated to have covered a staggering distance of more than forty thousand kilometers in his almost constant campaigning. However, given the status of the Mamluks as Turkish-speaking former slaves, and the suspect way in which they rose to power, they had a strong need for legitimization. The last ʿAbbasid caliph had recently (in 1258) been killed by the Mongols in Baghdad, and when a supposed uncle turned up in Damascus, Baybars had the brilliant idea of recognizing him as the current ʿAbbasid caliph, while ensuring that his political power was entirely nominal. Even though many contemporaries recognized the puppet

nature of the subsequent ʿAbbasid caliphate in Cairo, the caliph's investitures were still sought by outlying Muslim rulers and so conferred luster on the Mamluks.

Another sure way to attain legitimization was by conspicuous architectural construction, whether to display might through imposing buildings, to cement relations with the ulema by the sponsorship of mosques and madrasas, or with more popular forms of piety through the erection of *zawiya*s, *khanqah*s, and pilgrimage complexes. These buildings were a highlight of Mamluk patronage, both of sultans and amirs.

Baybars's first major construction, like that of many of his Ayyubid predecessors, was a madrasa (1263). This particular educational establishment had several novel features that would reappear in later Cairene architecture, including a four-iwan plan (in this case two of the four schools of law) and a *muqarnas* portal topped by a minaret. Its location was also in the most prestigious place in Cairo, at Bayn al-Qasrayn, the center of the old Fatimid city, next to the Salihiya Madrasa.



The *muqarnas* portal (1263) from the madrasa of Baybars, Cairo; sketch by James Wild (1840s)

Cairo remained the city from which the Mamluks ruled and on which they concentrated their patronage. While it is true that sultans occasionally erected important monuments in Jerusalem or Madina (places of pilgrimage rather than the commercially more important urban centers of Aleppo and Damascus), they preferred Cairo for the vast bulk of their projects, leaving patronage in the provinces to the amirs who were appointed as governors there.

The major cities of Egypt and Syria had long had Friday mosques when the Mamluks came to power, so the scope for building new ones was, in theory, limited. Although the position of the Shafi'i law school (one of the four great law schools of Sunni Islam) on the building of Friday mosques was that there should be only one in each urban entity, the Hanafis, as noted above, had no such restriction. This has a bearing on the first major Mamluk mosque, that of Baybars. The Hanafi Mamluk amirs had previously had disputes with the Shafi'i judges; in response, Baybars abolished their judicial monopoly and made the four schools of law virtually equal. The first Mamluk Friday mosque in Egypt, that of Baybars, was also the first to incorporate a very large dome chamber in front of its mihrab—one that, unlike the previous Fatimid examples, took up the space of not just one but several bays (in this case, nine). Almost all of the subsequent Mamluk purpose-built congregational mosques in Cairo followed this scheme: a hypostyle plan with a large dome taking up the space of nine bays in front of the mihrab.

Further consolidation of Mamluk power took place with Sultan Qalawun (r. 1279–90), who also spent much time campaigning in Syria against the same enemies as Baybars had: the Crusaders and the Mongols. It was on one of these campaigns that he received treatment in the Hospital of Nur al-Din in Damascus, and vowed that he would build its equal in Egypt if he recovered. As a result, his complex in Cairo consisted of a hospital, a madrasa, and a mausoleum. This was in the same area of Bayn al-Qasrayn in which Baybars's madrasa had been built, on the site of a palace occupied by female descendants of the Ayyubids who had to be forcefully evicted. The location was coveted by Qalawun because of the proximity of the mausoleum of his former master, al-Salih Najm al-Din. In fact, we know that Qalawun rebuked the officer in charge of construction, al-Shuja'i, for building the madrasa (rather than the mausoleum) opposite al-Salih's mausoleum, as Qalawun had intended.[41] Two important facts can be deduced from this: first, the involvement of the patron in the conception of the original design, and second, his complete delegation of the works, in this case, to a subordinate.

This is the earliest surviving complex by a member of the Mamluk elite that includes a tomb. As usual, it contains a mihrab, and even has the minaret of the complex beside it, further suggesting its suitability for prayer. The mausoleum remained a staple of most later Mamluk complexes, and it is worth exploring the reason why this was so, and the relationship of building complexes to *waqf*.

The prime consideration for sponsoring a building for one's fellow Muslims was undoubtedly piety, which is connected with the concept of *baraka* (grace or blessing). This in turn led to other considerations: principally the building of mausoleums, but

also their inclusion within complexes and their siting in relation to the street and the qibla area. Building a mausoleum was still to some extent a controversial matter in Islam, which some clerics thought reprehensible. However, religious objections would clearly be less likely if the tomb chamber was attached to a larger building that had a specific religious function, such as a mosque, madrasa, or *khanqah*. A more modest commemorative complex, often sponsored by non-royal patrons, was the *turba*, usually built in a cemetery, which included a mausoleum and various other functions such as a mosque, a *sabil* (water dispensary), and occasionally provision for Sufis or for teaching.[42] Closely related to the building of complexes was the *waqf ahli*, the family endowment, whereby family members controlled the disbursement of *waqf* income and were permitted to devote any surplus to the needs of maintaining the religious institution. For an official whose tenure of power was precarious and whose wealth could be confiscated if he fell into disgrace, this had the added advantage of securing most of his wealth for his family, since *waqf*s, at least in theory, were inalienable.[43] Next is the question of street–qibla alignment in the most prestigious location for monuments, the densely settled old city and neighboring quarters, which in turn is related to *baraka* and the siting of the mausoleum within complexes. In her pioneering work on the siting of mausoleums, Christel Kessler wrote about the unwritten rules involved.[44] With hindsight, we can enunciate some of them. The preferred characteristics of a mausoleum were that it should have a mihrab to encourage prayer, and be exposed to as many Muslims as possible. The latter requirement could be fulfilled by having windows facing the street or onto the main prayer space (usually the qibla iwan) of the complex to which the mausoleum was attached. If only one of these was possible, a street façade trumped proximity to the prayer hall. And if size did not permit a window and a mihrab (as in the mausoleum at the Mosque of Shaykhu), then a window was preferable to a mihrab.

In the case of Qalawun's complex, the single largest element, the hospital, was relegated to the area farthest from the street, leaving the façade for the madrasa and mausoleum. The provision, common in major foundations, for a team of Quran readers to recite day and night in the deep window recesses made the mausoleum even more evident to passersby: the expectation was that a prayer would be offered in return for the repose of the soul of the founder. Qalawun's tomb also played a ceremonial role, as it replaced the Tomb of al-Salih across the street as the place where newly appointed Mamluk amirs swore allegiance to their sultan. In Qalawun's tomb and those of many later Mamluk sultans, eunuchs were employed as guardians.[45] Although they were highly jealous of their role in preventing unauthorized access to the tombs, a telling passage by the bureaucrat al-Nuwayri (d. 1332) that lists the personnel of the Qalawun complex mentions that this duty to prevent access to the tomb applied at any time "other than at the times of prayer," an indication that commoners were probably permitted to pray at the regular appointed hours within the mausoleum.[46]

Descendants of Qalawun filled most of the posts of sultan up to the advent of Barquq (r. 1382–88, 1390–99). Of these the most prolific in terms of architectural patronage was al-Nasir Muhammad (r. 1293–94, 1299–1309, 1310–41), facilitated by his

long periods of rule from childhood to middle age. His own complex, consisting of a madrasa and mausoleum, was begun by an amir, Kitbugha, who had earlier displaced him as sultan. Although its location was favorable, being next to that of Qalawun, it was relatively modest in size. In later buildings, al-Nasir Muhammad's taste tended toward the monumental,[47] but he may have decided to continue with this small structure to spite Kitbugha, who had been forced into exile in the meantime. It was the first four-iwan structure in Egypt[48] for the four schools of law, an arrangement that proved popular thereafter.

Al-Nasir Muhammad also managed to undermine the complex of the second amir to usurp his sultanate, Baybars al-Jashinkir. This Baybars built the first combination in Egypt of *khanqah* and mausoleum (1309)—evidence of the increasing popularity of Sufism in society, and one that was enthusiastically embraced by many later patrons, including amirs of al-Nasir Muhammad such as Qawsun.[49] In addition to the insult of removing Baybars al-Jashinkir's royal titles from its façade, al-Nasir Muhammad also ensured that the complex remained closed for sixteen years after he regained power, just after he himself had built a *khanqah*, mosque, and mausoleum at Siryaqus north of Cairo.[50]

Al-Nasir Muhammad's third reign of thirty-one years was the longest in Mamluk history, and permitted a huge expansion in his own architectural patronage as well as that of his amirs, whom he partially funded and greatly encouraged.[51] He himself built Friday mosques, one in Cairo's citadel (1318, rebuilt higher in 1335), and another, the Jami' al-Jadid (New Congregational Mosque, 1312), on the Nile shore between Fustat and the Fatimid city. The latter has not survived, but from its detailed description by the historian Ibn Duqmaq it seems to have been very similar to the citadel mosque. Both, like the mosque of the early Mamluk sultan Baybars, had a domed *maqsura* taking up the space of nine bays in the hypostyle plan, and the Jami' al-Jadid may also have had three projecting entrance portals like Baybars's mosque. On two of its sides there were gardens. It also had a *maqsura* on its northern side for Sufis. This was presumably just a grilled enclosure, but it presages the building of al-Nasir Muhammad's complex at Siryaqus and those of later Mamluks, which would blur the distinctions between *khanqah*, madrasa, and mosque in Mamluk society. The amir al-Maridani's mosque (1334–40), for which al-Nasir Muhammad provided materials, has a similar layout to those of al-Nasir Muhammad. The simple hypostyle plan, with or without a dome in front of the mihrab, also remained popular, as is shown by the mosques of the amirs Bishtak, Husayn, Ulmas, and slightly later, those of Shaykhu and Aqsunqur.

The architectural landscape after al-Nasir Muhammad's reign was thus enormously widened, both on account of his own building activities and those of his amirs, whom he greatly encouraged. With the Crusader and Mongol threats to Mamluk territory eliminated, the state coffers were now replete. One of the reasons that al-Nasir Muhammad stayed in power so long was that he curried favor with all ranks of Mamluks, not just the amirial elite, by means of largesse and by facilitating easy promotion through the ranks. There was a price to pay for this profligacy, however: the rank-and-file Mamluks now realized their power as kingmakers. Their ability to

side with different factions in struggles for succession could sway the balance. Al-Nasir Muhammad's successors were usually selected from his descendants—children plucked from the harem, short-lived on the throne, and only nominally in control—until the arrival of the Circassian sultan Barquq in 1382 put paid to the nominal Qalawunid dynastic succession.[52]

However, during the Qalawunid period Sultan Hasan (1356–63) managed to build the most impressive of all Mamluk complexes, designated a congregational mosque *(jami')* in its *waqfiya* (endowment deed), although the space was also used by students of its madrasa. The addition of four single-iwan madrasas in its four corners is one of the several unique features of this complex, another being the location of the domed mausoleum behind the qibla iwan.

One excursus may be made here regarding a phenomenon mentioned earlier: Cairo's receptivity to outside influences. The modeling of the entrance portal of Sultan Hasan's complex on Anatolian Seljuq models has been noted by J.M. Rogers,[53] and its decoration also contains the first chinoiserie motifs to be seen on local architecture,[54] plus reused Crusader carvings.[55] The vestibule has an inlaid marble panel that is very likely the design of a Damascus workshop.[56] But it also has, on a tympanum of the mausoleum, what may be the last example by an atelier that introduced Iranian tile techniques to Egypt. It is unlikely that the Mamluks brought with them any clear consciousness of architecture or material culture from their homelands. But Aytamish, the Mongol-speaking Mamluk ambassador to the court of Abu Sa'id, was so impressed by the minarets of the Mosque of 'Ali Shah in Tabriz that he brought their builder back to Egypt.[57] There, the latter erected a similar minaret for Aytamish's complex of a *zawiya* and *hawd-sabil* (animal trough and water dispensary) in the town of Fishat al-Manara in the Delta. The same person also worked for the amir Qawsun, as Maqrizi tells us that the *banna* (architect) of Qawsun's congregational mosque in Cairo was a Tabrizi who built its minarets in the style of those of the mosque of 'Ali Shah at Tabriz.[58] Michael Meinecke traced the work of this atelier until it petered out. Why did it fall out of fashion? Probably because of a combination of reasons: the ready availability of stone, which could compete with tilework by carving or painting or both, and the inexperience of the potters, who never managed to make tile mosaic that had the lustrous intensity of the glaze that made the Iranian examples such a sensuous pleasure. An attempt in the early fifteenth century to simulate Anatolian-style tile mosaic in the complex of Badr al-Din al-'Ayni also proved a dead end; there, the Turkish-speaking patron probably experimented with it in order to underline his affinity with the ruling Mamluks.[59]

Barquq, the founder of the Circassian line of Mamluk sultans, borrowed several features from Sultan Hasan for his own complex (1386), but his mausoleum, like those of Qalawun and al-Nasir before him in the same location, lay parallel with the façade of the madrasa on the street. All three of these had another feature in common, which is harder to recognize nowadays since nineteenth- and twentieth-century restoration has transformed them: they all had wooden domes, as had both of the other earlier large dome chambers in Cairo: those of Imam al-Shafi'i and the Mosque of Baybars.[60]



Painted ceiling of the Mosque of Ahmad Kuhya, Cairo (ca. 1325–45)

A major change in this tradition was started by Faraj, the son of Barquq. The two domes over his mausoleums in his complex in the northern cemetery were made of stone, and decorated with a zigzag pattern. There had been earlier stone domes in Cairo, but not on this scale. Almost all patrons of large mausoleums were now so excited by the possibilities of the new patterns and techniques of dome decoration that they insisted on a carved stone dome for their complex.[61] This brings us to one of the major and most surprising changes that characterized later Mamluk architecture: it proceeded from the monumental to a concentration on ornamentation on smaller buildings. In the four-iwan structures that remained the most popular for major foundations, a noticeable influence from domestic architecture is also apparent, resulting in vestigial side iwans, laterally extended qibla iwans, and covered courtyards.[62] Given the number of earlier houses that had been converted into mosques, this is hardly surprising.[63] Two other trends are important, the first illustrated by Faraj's complex. It was the first of several royal complexes in the northern cemetery. Building here had the advantage of unencumbered surroundings. Yet, unlike their contemporaries the Timurids,[64] for instance, this did not lead the Mamluks to fashion symmetrical complexes, except in the case of Faraj's. We can even detect a fissiparous tendency, exemplified by the complexes of al-Ashraf Barsbay and Qaytbay. The building for the students of Qaytbay's complex, as well as the *qa'a* for the female members of his family, was located well away from the main structure. Only al-Ghawri tried to break the mold, returning to the Fatimid city but even then splitting his complex into two facing ensembles.[65]

Artifacts in Mosques

Since so many of the finest artifacts still within mosques or in the collection of the Museum of Islamic Art in Cairo are from the Mamluk period, this is a good place to attempt an overview of furniture and other objects created for use within mosques. This might help us to envision their original surroundings without some of the distractions that have been introduced in recent decades.

Lighting

Before the introduction of electricity, mosques were dependent on oil lamps for illumination. Many mosque endowment deeds mention a position of *waqqad*, the person in charge of maintaining the lamps and procuring olive oil for them.[66] The lamps themselves were of various types. One of the earliest, also known from Byzantine prototypes,[67] was the *tannur* (polycandelon), usually in the form of a bronze circle with spokes and compartments for small glass containers that would have been filled with oil floating on top of water. The Fatimid ruler al-Hakim in particular seems to have favored magnificent silver polycandela; he gave two of each to the Azhar and Rashida mosques, and his own mosque at Bab al-Futuh had four.[68] The most impressive must have been that which he donated to the Mosque of 'Amr, which was over four meters in diameter, held seven hundred lamps, and was so large that one of the doors of the mosque had to be dismantled to get it inside.[69] It was one of the hundred lamps that, according to the Persian traveler Nasir-i Khusraw, burned there every night.[70] Unlike the earlier one-tier Byzantine examples, these must have had many tiers in order to support such a large number of lamps; they may have been pyramidal in shape like those currently in the nave of the Great Mosque of Qayrawan,[71] or possibly cylindrical, with enough space between the tiers to allow for the glass containers to hang. In the last-named category are several of the most impressive Mamluk examples, including those made for Amir Qawsun[72] and the sultans Hasan and al-Ghawri. Simpler Mamluk polycandela are also known, with a lower circular tray for suspending glass bulbs covered by a bulbous dome, perforated to allow the light to be filtered gently onto the surroundings.[73] Another category of perforated lamps is vase-shaped, which, like all these examples, were meant to be suspended on chains.[74] Yet another type appears only at the end of the Mamluk period: those in the shape of a truncated pyramid, usually hexagonal. They were also perforated, with an arched door on one or two sides to allow access to the bulbs. That of Asalbay from her mosque in Fayoum is one of the finest examples.

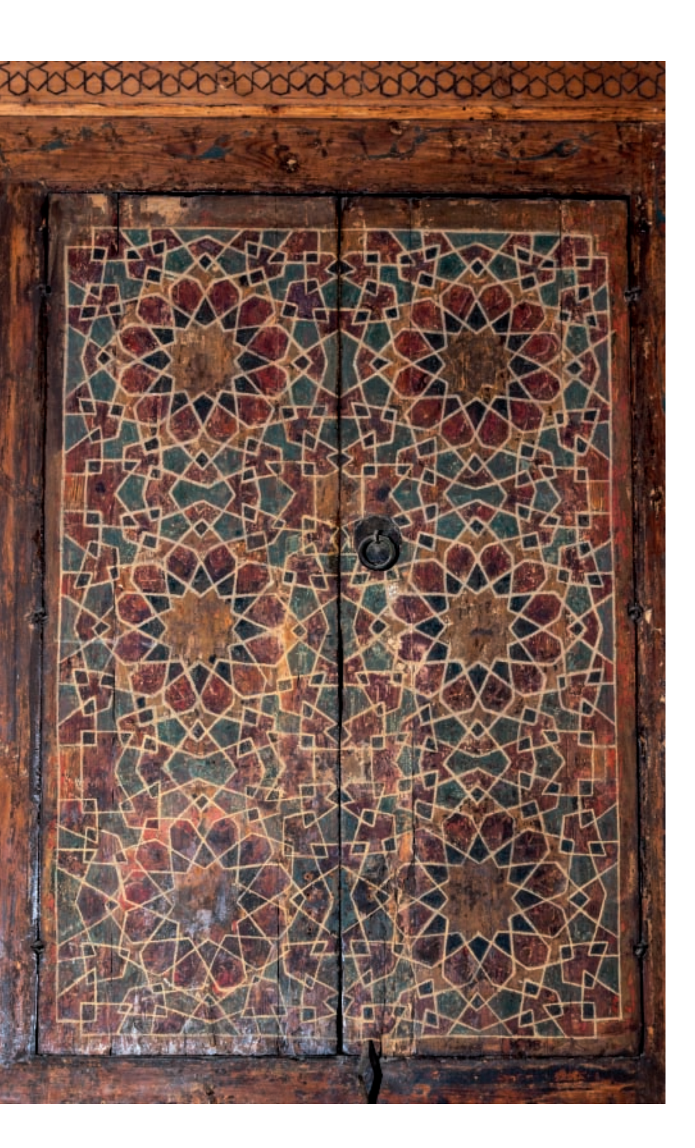
The most spectacular lamps were the enameled vase-shaped glass ones, a Mamluk specialty that produced a corpus unparalleled not just in the Islamic domain but in the world of glassware.[75] The earliest known example is from the beginning of the fourteenth century; they increased in size from 25 cm high to the magnificent group made for the Sultan Hasan complex, where examples 42 cm high are known. In addition to the usual inscriptions and blazons, those for Sultan Hasan are decorated with a wider variety of colors and motifs than any others, including pseudo-Kufic and chinoiserie. After the economic decline at the beginning of the fifteenth century, production of this kind of lamp almost ceased.[76]



Above: Lamp, brass inlaid with silver, Qaytbay period (c. 1480s–1490s), from the Mosque of Asalbay, Fayoum (1498–99)

Below: Lamp, brass, from the Mosque of Qawsun, Cairo (1330)





Cupboard doors, painted wood, from the *khanqah* of al-Ghawri, Cairo (1502–1504)

Quran boxes and Stands

Recitation of the Quran was a practice from early times in mosques. For instance, Muqaddasi (d. c. 990) mentions that in the Mosque of ʿAmr Quran readers sat in circles every evening and recited.[77] In 1013, al-Hakim sent seven boxes containing 1,298 Qurans to the same mosque, and 814 Qurans to the Mosque of Ibn Tulun.[78] Furniture of various types was associated with Quranic recitation. In later buildings cupboards with shelves were built to store the volumes, some Mamluk examples of which had particularly attractive painted decoration. Other methods for storing particularly valuable Qurans were boxes, frequently compartmentalized into seven or thirty units—a helpful division for reading the text within a week or a month. A hexagonal wooden box from the Madrasa of Umm al-Sultan Shaʿban (1369) is one of the finest surviving examples, showing marquetry patterns of hexagons on the sides and an arcade of joggled voussoirs on the lid.

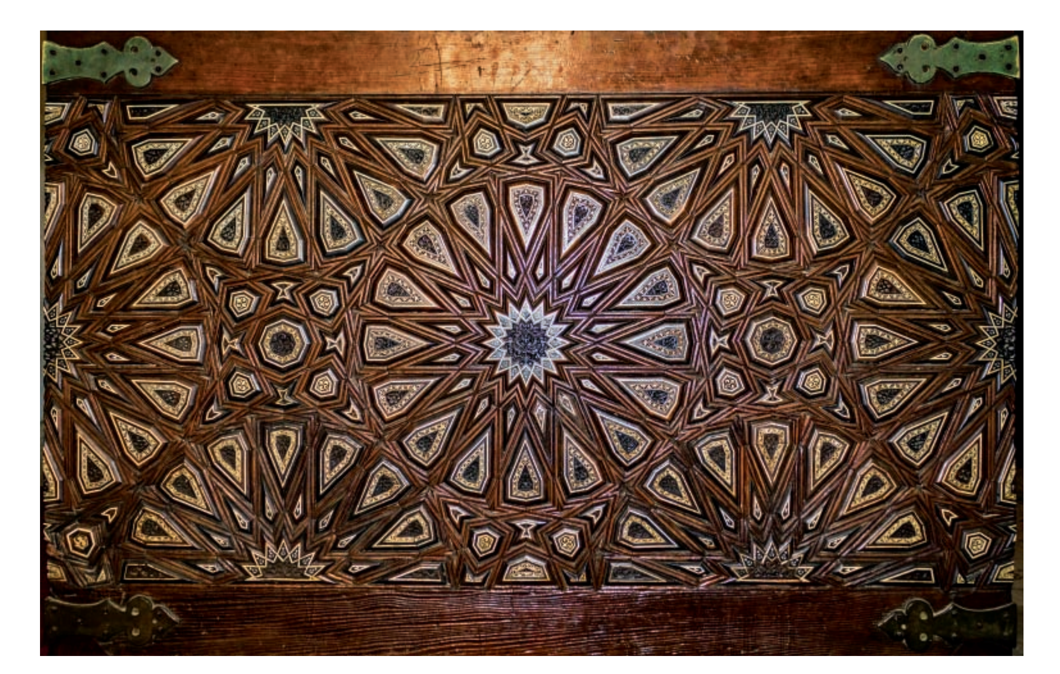
Once taken out of the box, the Qurans, if they were small, could be placed on a *rahla* (folding wooden stool). Although common elsewhere in the Islamic world, only one medieval example from Egypt seems to have survived, from the period of al-Ghawri (dated 911/1505–6), which has an inlaid ivory inscription in large letters,[79] perhaps the start of a trend that is reflected in slightly later Ottoman woodwork.[80] It is likely that the teams of Quran readers employed to recite in the windows of major mausoleums in complexes (for instance, those of sultans Qalawun and Hasan) would have used *rahlas*.[81]

But the most impressive Quran holders were the stands (a *kursi* or *mashaf*), which included room for a reader to sit cross-legged in front of the volume. These were no mere conceit, as Mamluk Qurans over one meter tall are known.[82] That of Sultan Hasan is, again, the largest that has survived, displaying the same kind of marquetry with geometric star patterns as contemporary minbars. A smaller, plainer one, sponsored by an amir, has survived at the ʿAmri Mosque at Qus.

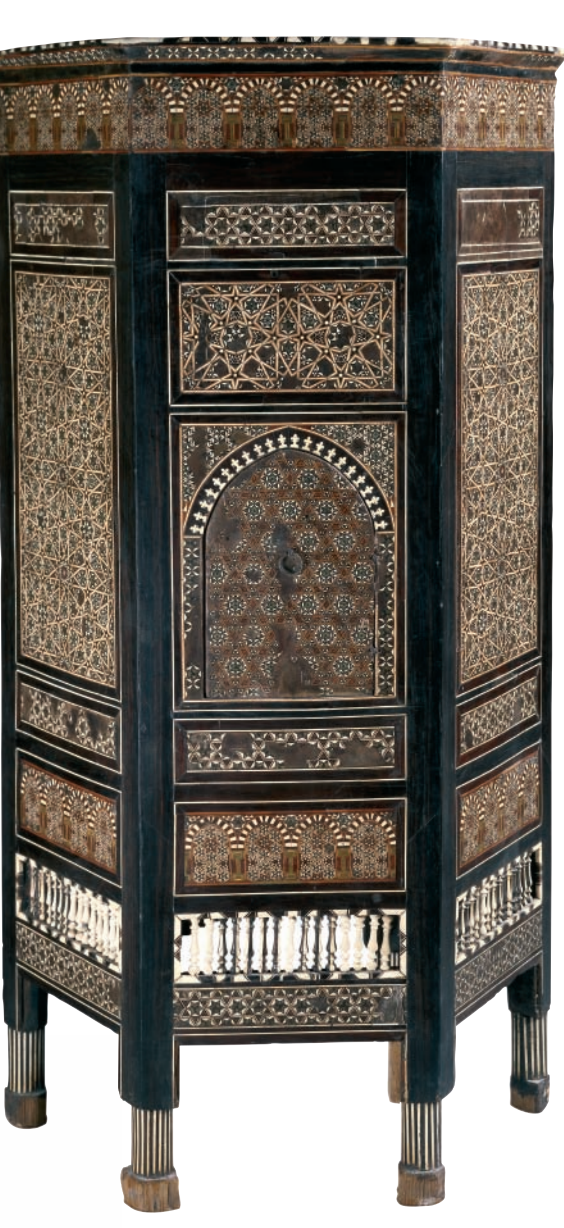
The arches mentioned above on the hexagonal wooden box from the Madrasa of Umm al-Sultan Shaʿban also feature prominently on its companion piece, a hexagonal table[83] from the same building. This has an arched doorway on one of its sides, showing that it was used for storage—although exactly for what is unknown. As a table, its height (115 cm) is awkward for someone sitting on the ground, but neither would it have been well suited for reading from a Quran placed on top. A table of similar shape and size, but made of inlaid bronze, was found in Qalawun's complex; its inner compartments are also too small to have stored Qurans. It is dated 1327–8, and must have been a gift from al-Nasir Muhammad, who is mentioned as the patron, to his father's complex. The main storage compartments are perforated. The only other items of Islamic perforated metalwork are lamps and incense burners. Incense burning would make more sense in this case, but that certainly could not have been the case for the wooden table. The purpose of these tables must remain a mystery for the moment.



Quran box, wood, inlaid with ebony, ivory and tin, complex of Umm al-Sultan Shaʿban, Cairo (1369)



Detail of inlaid wooden *mashaf*, complex of Sultan Hasan (c. 1360)



Table, wood inlaid with ivory, bone, redwood, and ebony, complex of Umm al-Sultan Shaʿban, Cairo (1369)

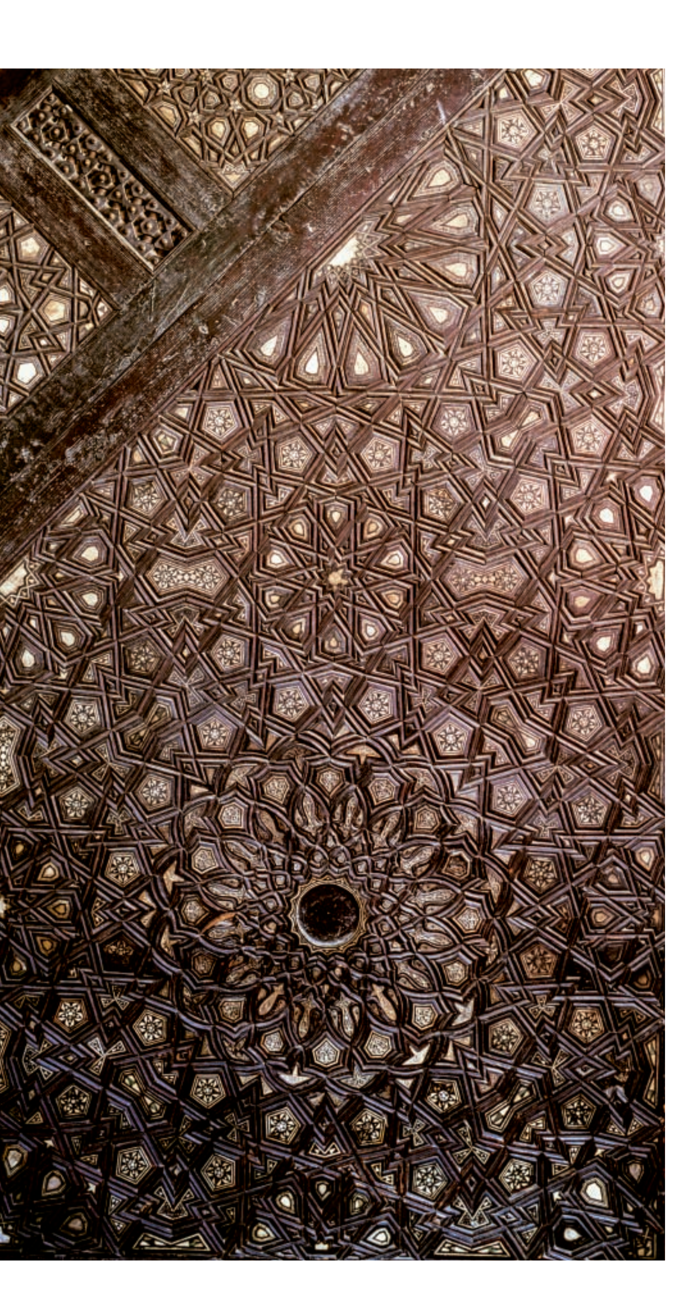


Detail of table (1327–28), copper alloy inlaid with silver, complex of Qalawun, Cairo

Minbars and *Dikkas*

The major element of mosque furniture was the minbar, although it can hardly be considered portable since it was a permanent fixture of congregational mosques.[84] The earliest surviving one in Egypt is that of al-Salih Tala'i', from his mosque at Qus.[85] This is already an extremely accomplished piece, as we would expect from earlier surviving examples of woodwork in Egypt such as the cenotaphs and portable mihrabs found in older and contemporary shrines.[86] It has one design that covers its entire sides, although the dividing line between the area below the stairs and the seat is emphasized by matching it with one of the vertical axes of the pattern. Some of the early Mamluk minbars (no Ayyubid ones in Egypt have survived) follow this scheme,[87] although they now use ivory or bone inlay and their patterns are more sophisticated. Later examples (see the entries under al-Ashraf Barsbay, Qaytbay and Qijmas) make the pattern yet more intricate by varying the sizes and numbers of stars that form the basis of the patterns, and sometimes have different patterns for the areas below the balustrade and for the balustrade itself. The panel below the seat may be differentiated from an arched space below, either open or with doors inlaid with yet another pattern. A painted bulbous dome usually tops the composition. The minbar of the Mosque of Burdayni (1616–30) closely copies its Mamluk prototypes, although like many Ottoman examples it makes extensive use of mother-of-pearl. Even though the Mosque of Muhammad Abu'l-Dhahab (1774) is Ottoman in style, its minbar is still firmly in the Mamluk tradition.

Even more prestigious were stone minbars, as the examples at the complexes of Aqsunqur, Sultan Hasan, and Faraj (the latter donated by Qaytbay) show. That of Aqsunqur is particularly attractive in its use of inlaid colored marble and the interweaving of the curves of its design (see page 111). The stone *dikka* of Sultan Hasan is rather plain by comparison, but the survival of the drawings of one made for the Mosque of Bishtak (1337)[88] shows that we may be missing some significant examples. Two Ottoman stone minbars in Cairo buildings are known. That at the Mosque of Sulayman Pasha (1528) is relatively plain, but Malika Safiya's (1610), with its delicate grilled ten-pointed star pattern set within a circle, is worthy of Istanbul's finest (see page 263).



Detail of the minbar of the Mosque of Abu'l-'Ila, Bulaq, Cairo (1490)



Detail of the *dikka* from the Mosque of Bishtak, Cairo (1336); sketch by James Wild (1840s)

Carpets

One might have expected carpets to be a usual fixture of mosque interiors, but references to them are not common, with reed mats instead being the norm. Nasir-i Khusraw did mention that the Mosque of 'Amr always had ten layers of colored carpets spread on top of one another.[89] There are also references to carpets made for the Taybarsiya and the Barquq complexes.[90] But it would also be strange if the superb marble inlay patterns that are found in many Mamluk prayer halls were usually hidden, suggesting that whatever floor covering was used it was gathered up after prayers or at least with some regularity.

The famous examples of Mamluk carpets known to us seem to have been a new type, whose creation was due to the influx of Turcoman immigrants from western Iran in the second half of the fifteenth century. Their production seems to have been intended primarily for export.[91]

Costs

Doris Behrens-Abouseif has recently collated fascinating information on building costs throughout the Mamluk period. She shows how, great as the building expenses were, they were still only a fraction of the amounts expended on household expenses by sultans and amirs, with costs for an average mosque equivalent to only the monthly wage of an amir, varying from twenty thousand dinars in the late fourteenth century to forty-six thousand in the late fifteenth.[92] These figures pale, however, before the one hundred thousand dinars spent by Sultan Abu Bakr, the successor to al-Nasir Muhammad (whose reign was a mere fifty-nine days), on the bridal veils of two of his slave girls.[93] The same amount was the cost of the tiara of another slave girl, Ittifaq, who was the favorite of three successive sultans: al-Salih Isma'il, Sha'ban, and al-Muzaffar Hajji.[94]

Ottoman Egypt (1517–1805)

The disregard for personal loyalty and the maneuvering for power and influence of the Mamluk amirs noted above further contributed to the unraveling of the Mamluk state. In 1515 the amir Khushqadam, falling afoul of the ruling sultan al-Ghawri, sailed to Istanbul where he advised the Ottoman sultan Selim of the lack of morale of Mamluk troops and the desirability of invading their dominions.[95] Selim, having previously vanquished the Safavids of Persia, needed little encouragement. At the decisive battle near Aleppo, Khayrbak, the governor of Aleppo, who had secretly agreed earlier with the Ottomans to defect, abandoned the battlefield with his troops, leading to the quick rout of the Mamluk forces.[96]

From being the capital of a sultanate ruling parts of Anatolia, Syria, Egypt, and Arabia, Cairo was reduced to being an Ottoman province. Revenue that formerly was brought into Egypt from these territories now flowed to Istanbul, so it is not surprising that the number and scale of Ottoman building projects in Egypt compare unfavorably to their Mamluk predecessors. The most plausible patrons for such edifices, the governors, did not usually spend long in the post (there were 153 of them before the advent

of Muhammad ʿAli). Some of them, such as Çoban Mustafa Pasha (1522–23), Sinan Pasha (1567–69, 1571–73), and Damat Ibrahim Pasha (1583–85) preferred to invest in complexes in their Ottoman homelands, while ʿAli Pasha (1559–60) endowed a mosque in Sarajevo, another city in which he had been governor.

The older view of the Ottoman period as one of continual decline for Egypt and Cairo has recently been challenged. The Ottoman Empire brought an enormous area from Baghdad to Tunisia and from Hungary to Yemen under one rule, with a concomitant increase in internal trade, of which Cairo was well placed to take advantage. Within the empire, pilgrimage travel to Mecca also greatly increased, another bonus for Cairo as it lay on more than one of the main routes to the Hijaz.[97]

Cairo expanded under the Ottomans, particularly in the suburbs to the west of the old city. One of the mosques examined in detail later, that of Malika Safiya (1610) (see page 262), was eventually built in an area to the west of Bab Zuwayla in which the tanneries had been located. The noxious smell from this industry[98] precluded nearby urban development. However, the wish of the Ottoman sultan Muhammad III (r. 1595–1603) for a mosque in his mother's name was so strong that he ordered the removal of the tanneries to Bab al-Luq. Birkat al-Fil, to the southwest of the mosque, was already a place of elite residences by the Mamluk period, and with the tanneries gone the area became even more popular for both amirial residences and other large-scale buildings. Shortly after the Malikiya Safiya Mosque came the nearby Burdayni (1616) (see page 267) and Yusuf Agha al-Hin (1625) mosques.

The major mosques built in Egypt in this period were mostly sponsored by government officials, usually the governor himself. The grandest of these, those of Sulayman Pasha, Sinan Pasha, Malikiya Safiya, and Abu'l-Dhahab, were all built in the Ottoman tradition, with a central dome forming the focal point of the design. But they are not mere slavish copies; none has the sheer size nor, for instance, the extensive use of Iznik tilework that is found in major Ottoman mosques. Even though by Ottoman standards it was a little anachronistic for the period, the Sulayman Pasha Mosque achieves an equally colorful interior by its use of painted plaster on the dome and vaults above the dado, previously unseen in Egypt. Its dado and mihrab, however, carry on Mamluk traditions. The Sinan Pasha Mosque's unencumbered dome chamber is close to Ottoman models, even if its zone of transition is taken from a Mamluk model. The purest expression of Ottoman mosque architecture on Egyptian soil is that of Malika Safiya, with a square courtyard preceding a prayer hall that has a hexagonal dome chamber. But here again, we need to allow for the originality of the designer, for although we know of eight sixteenth-century Ottoman mosques with hexagonal supports for the domes,[99] all of them have supporting semidomes (not present at Cairo), and none of them has the six freestanding columns that support the dome of Malika Safiya. Where were these mosques designed? From documents sent by the Porte (Ottoman administration) in the name of the famous architect Sinan in 1584 and 1585, we know that the very high degree of centralization of the Ottoman bureaucracy extended to architectural matters.[100] But all of the previous examples have some Mamluk-inspired features—even the most Ottoman of the above, the Malikiya Safiya, has an inlaid marble mihrab.

The *waqfiya* of the Malikiya Safiya Mosque informs us that it employed two knowledgeable gardeners charged with tending the plants, although their salary was only two-thirds of that given to the two "strong men" charged with watering the plants.[101] The newly settled location permitted the space necessary for a surrounding garden, and, although it is not a feature normally associated with mosques in Egypt, it is worth remembering that several no-longer-extant Fatimid and Mamluk religious institutions, particularly in the cemetery area between Fustat and Cairo, were also provided with gardens.[102]

The plethora of madrasas and *khanqah*s erected by the Mamluks was not matched by the Ottomans. Those that we do have, such as the madrasas of Sulayman Pasha (1534–35) and Sultan Mahmud (1750), differ from their Mamluk conterparts in having no minaret and only a small area set aside for prayer.[103] The Madrasa of Sultan Mahmud is interesting in incorporating another area for prayer that we have not encountered before: the *sabil*. *Waqfiya*s from the Qaytbay period of no-longer-extant *sabil*s document examples with imams appointed to them to lead prayers.[104] According to its *waqfiya*, the *sabil* of Sultan Mahmud had an imam to lead prayers, as well as eleven Quran readers and ten men who performed invocations to the sultan.[105] Its carved stone mihrab has recently been made more attractive by red, gold, and black paint,[106] but the cynosure of the decoration of the whole complex is the back wall of the *sabil*, which contains the best Iznik tiles in Cairo, in particular in its two arched panels. These are from the sixteenth century, the period of Iznik's finest production, and so have obviously been reused in this later building. Behrens-Abouseif has already noted how some of the original tile borders are missing, and that the design is a patchwork.[107] But even the two

Detail of interior of the *sabil*, madrasa of Sultan Mahhmud, Cairo (1750)



best panels, symmetrical at first glance, turn out on close inspection to have been fitted together with many lacunae. Extensive tile panels were not a feature of architectural decoration in Egypt before the Ottoman period; the conquerors imported their own aesthetic. Other large-scale examples include the revetment of the qibla wall and tomb chamber of the Aqsunqur Mosque (see page 110) added by Ibrahim Pasha (1652), and the qibla wall of the Sini Mosque (1788) at Girga. Both of these feature reused tiles; unlike Damascus, where a thriving industry of Iznik-style tiles with a different palette arose,[108] Cairo never developed significant tile production in the Ottoman period.

Most buildings in Ottoman Cairo, including mosques, were sponsored by non-governmental figures who were not bound by any centralized system of architectural design and were happy to continue building in the tradition of previous centuries. This was true whether the patron was a local merchant (as in the case of the Mosque of al-Burdayni, 1616) or even a member of the Janissary corps (Mosque of Shurbaji Mirza, 1698).

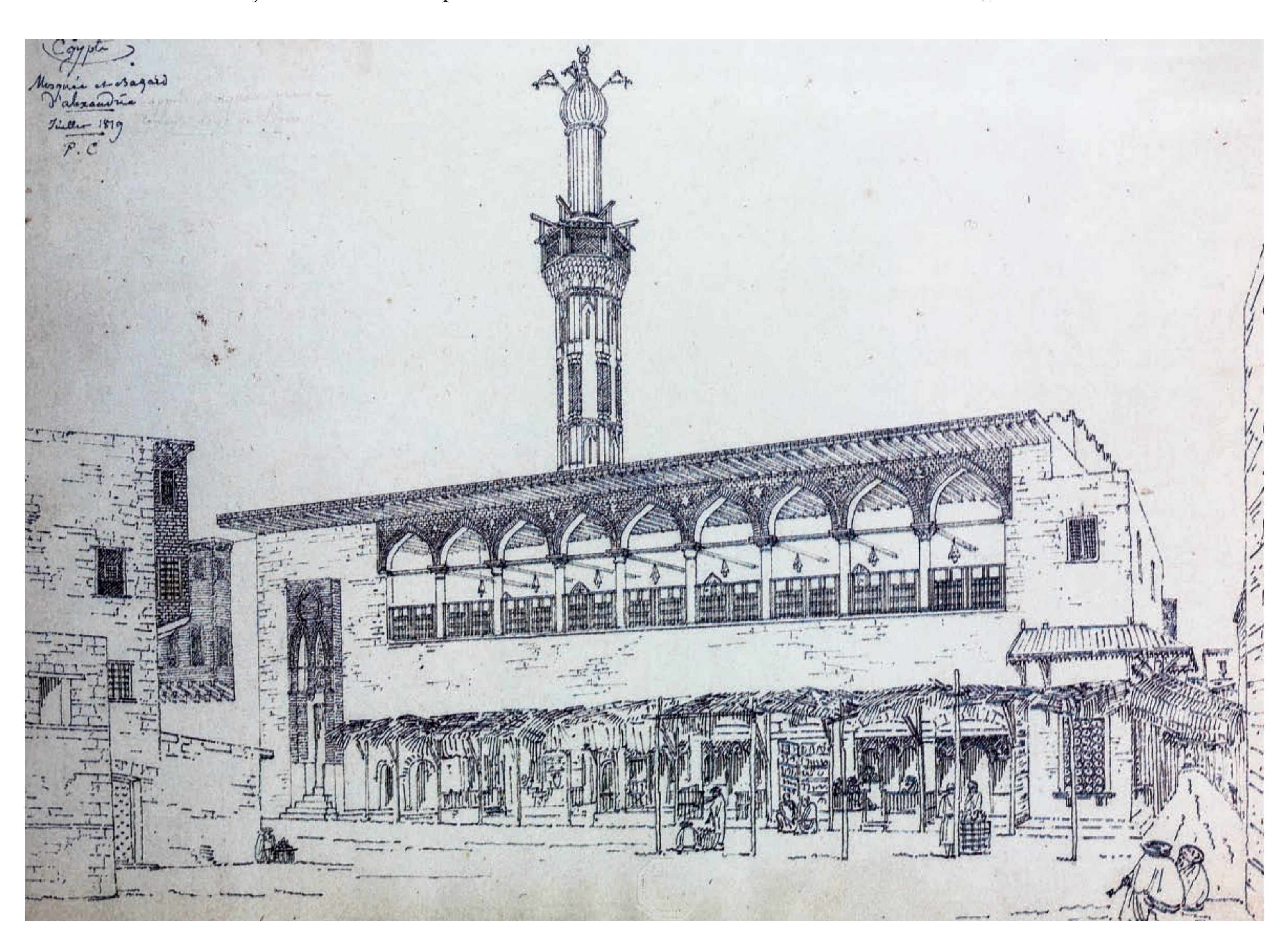
If this was true of the capital, it was even more the case in the Egyptian provinces, where a more traditional model was the norm. Most of these mosques are small, although some larger ones, like that of al-Mitwalli at Mahallat al-Kubra, were restorations or rebuildings of much earlier ones. All are hypostyle, and their usual lack of a courtyard was a sensible complement to their mostly small size. The material is usually brick, with columns either of reused stone or made of wood. Wooden columns were never seen in Cairo, but had occasionally been earlier used in some Anatolian buildings.[109] The decoration is usually restrained, with geometric brick patterns or stucco imitating brick in red and black used on entrances and mihrabs. The qibla wall may also be enlivened by tiles, of Iznik or Tunisian manufacture, although the inferior quality of the latter shows not only in their design and colors but in the flaking of the glaze.[110] The most exuberant part of the mosque may be the minaret, up to four stories tall in the case of al-Mujahadin Mosque at Asyut.

Several examples of elevated mosques are known. The rising ground level has disguised the extent to which this was the case in the mosques of al-Aqmar, al-Salih Tala'i and Shurbaji in Cairo. But it is still very apparent in the Abu'l-Dhahab complex at Cairo and in the examples, closer to the Mediterranean, of Duqmaqsis at Rosetta and the Shurbaji and Tarbana mosques at Alexandria.[111]

Detail of interior of the *sabil*, madrasa of Sultan Mahhmud, Cairo (1750)



Exterior of the Shurbaji mosque, Alexandria (1758) (after Coste)



Muhammad ʿAli (r. 1805–48) to the Mid-twentieth Century

By the second half of the eighteenth century, the power of the old Mamluk beys, such as the patrons ʿAbd al-Rahman Katkhuda and Muhammad Abu'l-Dhahab, had begun to rival that of the governors sent from Istanbul. Both, however, proved unable to resist Napoleon's forces in 1798. Although short-lived, the French invasion was followed by major changes in Egypt's status. Muhammad ʿAli, an officer initially only second in command of the Ottoman army's Albanian Corps, managed to seize power in the confused situation in Egypt shortly after his arrival there in 1801. His de facto control over Cairo was recognized by the Porte in 1805, when he was made governor. He cemented his position by massacring the remnants of the Mamluks in 1811. He then expanded into Syria and the Hijaz, and in 1841 the Ottoman sultan granted him Egypt and Sudan as a hereditary domain.

Thus Egypt was only nominally under Ottoman control at this time, and in his attempts to develop the country Muhammad ʿAli looked to Europe, whose nations became his main trading partners. In consequence, Alexandria increased enormously in size in this century, from a village of ten thousand to a city of nearly a quarter of a million inhabitants. Europe, and especially France, also figured more prominently in the cultural sphere. An example of this is Pascal Coste, who was employed as Muhammad ʿAli's architect and engineer from 1817 until 1829.[112] Not content with merely massacring the Mamluks, Muhammad ʿAli also obliterated most of their remaining buildings on the citadel, determined to erect a large mosque in his name. However, the plan that Coste produced for him had its origins in the complex of Faraj ibn Barquq, and although the minarets were Ottoman in style its major focal points, five large domes, were very much in the Mamluk manner.[113] Coste's plan remained unbuilt. Ironically, despite Muhammad ʿAli being the most independent governor since the post had been instituted three centuries earlier, he instead sponsored the only truly monumental mosque based on the plan of imperial Ottoman examples (see page 303).

The first major built example of Mamluk Revival, the style that was to dominate Egyptian mosque architecture for over a century, came in 1869 at the Mosque of al-Rifaʿi. By this time, the Muhammad ʿAli dynasty had reoriented itself away from Turkey and had begun to think of themselves primarily as Egyptians.[114] This change may have been accentuated when in 1867 Ismaʿil Pasha, Muhammad ʿAli's grandson, received the title of ***khedive*** (viceroy) of Egypt rather than that of ***wali*** (governor). The architect of the mosque of al-Rifaʿi, Husayn Fahmi, was also a member of the royal family and had studied in France;[115] his client was the patron, Ismaʿil's mother, Khushyar Hanim. We have no specific information on why this style was chosen, but presumably it answered to a wish to assert a newfound adherence to Egyptian identity. Unlike Coste's proposal, however, the plan of this building was not specifically related to Mamluk models.[116] Like almost all subsequent examples, the Mamluk Revival style here was only skin deep, a decorative revetment on an unfamiliar core.

The style was also used for villas and government buildings,[117] but it cemented its popularity in the Egyptian imagination by being employed for several shrines in Cairo, including those of Awlad Inan (1896) and the extremely popular ones of Sayyida Zaynab (1887), Imam al-Shafiʿi (1892), and Sayyida Nafisa (1896).[118] The architects of these were both foreign (Julius Franz) and Egyptian (Saber Sabri). Saber Sabri's position as chief architect of the Ministry of Waqfs was also important for the continued success of the Mamluk Revival style, as was its employment by his successor from 1906 until 1916, Mahmud Fahmi, in secular as well as religious buildings.[119]

Coste had also designed a Mamluk Revival style mosque for Alexandria; like his Muhammad ʿAli Mosque for Cairo, it remained unbuilt.[120] It fell to another chief architect of the Minstry of Waqfs, Mario Rossi, to stamp this style on the rapidly growing second city with the funerary Mosque of Abu'l-ʿAbbas al-Mursi (1929–45). Rossi had initially come to Cairo from Italy in 1921 as an assistant to another Italian, Ernesto Verrucci, who was the chief architect for Sultan, later King, Fouad (r. 1917–36). Rossi became chief architect of the Ministry of Waqfs by winning an international competition in 1929 to design a portal for the Neo-Mamluk Ministry of Waqfs building at Bab al-Luq in Cairo. During his subsequent tenure, lasting until 1955, he designed, or at least supervised the design of, no less than 260 new mosques for the ministry—including what was then the largest congregational mosque in the United States, at the Islamic Center of Washington DC.[121]

Rossi was consistent in cladding his buildings inside and out with mostly Neo-Mamluk motifs. He also used familiar Mamluk forms such as minarets, portals, domes, and lanterns, sometimes combining them with Egyptian Ottoman motifs.[122] Most of his buildings have a centralizing tendency, but this is focused on what might have been the courtyard in earlier buildings, which was now roofed, usually by a lantern. As a result, the mihrab is usually (and unfortunately) ~~and~~ darker than the central portion of the mosque. The square central cores of the buildings are frequently emphasized by a stepped exterior. He also liked to incorporate, often as part of the ablutions facilities, a semicircular extension, the most obviously Europeanizing element of his designs.[123] His usual elimination of the courtyard could also be interpreted as a Western element, although even as monumental a mosque as the earlier al-Rifaʿi had omitted it. Such was the ubiquity of Rossi's model that even in the second half of the twentieth century, many Egyptian architects struggled to move on from it: later closely related examples include, for instance, the Cairene mosques of Salah al-Din (1962) by Aly Khairat (also employed by the Ministry of Waqfs) and al-Sayyida Safiya (1980) by Mohammad ʿIsa.[124]

Modern Mosques

When I first accepted the commission to write this book, I looked forward to the chance to research not just the pre-modern mosques which I was familiar with, but also those from the twentieth and twenty-first centuries. As an ardent admirer of modern architecture, the possibility of finding fusions of contemporary design and historical consciousness excited me. What bold new work had been produced in recent decades? What hidden gems deserved to be uncovered?

I confess that I found the available choices disappointing. I am not alone in this evaluation. Egypt is absent from the appendix of "Key Mosques and Islamic Centres"

in Holod and Khan's *The Contemporary Mosque* (1997).[125] An even more up-to-date bellwether is the Aga Khan Award for Architecture, presented every three years since 1980 to a variety of projects, the most recent being in 2013. Not one of these prizes has been awarded to an Egyptian mosque. Even more surprising, perhaps, is that out of the total of 110 buildings that were premiated, only eight were mosques, and the last was in 1995.[126] Egypt is not as rich as some of its neighbors, but throwing money at the problem does not guarantee success: despite the vast amounts of wealth lavished on state mosques in this period, none has been given prizes.[127]

Perhaps part of the reason for this is that the choice of building styles for modern mosques has increased enormously, as internationalization has become the cultural norm in societies. One recent analysis by Ihsan Fethi puts forward five categories for mosques, the first four on a sliding scale from vernacular to conventional to "New Classic Islamic" to modern, and a fifth for an eclectic "Arabian Nights" model.[128] These are by no means equally weighted in modern Egyptian examples, with most coming from the first two categories. Ironically, given the conservative models adopted for mosques, architectural education since the early twentieth century in Egypt, as in many other Middle Eastern countries, privileged the modern West, frequently omitting the local heritage altogether from the curriculum.[129]

It was the backlash against this that produced one of Egypt's most feted architects, Hassan Fathy. The story of his struggle to populate his settlement at Gourna was published in Egypt in 1969 as *Gourna, A Tale of Two Villages*, but struck a much more resonant chord with a wider public when republished in Chicago in 1973 as *Architecture for the Poor*.[130] He is also widely celebrated as one of the chief exponents of the vernacular school, and his influence has been spread by numerous disciples. The virtues of the mosques by him and his followers (see the entries on Gourna 1948, page 322, Basata 1999, page 334, and El Gouna 2007, page 337) are a return to basics with their elimination of the highly decorated façades of the preceding Neo-Mamluk style, and the careful balancing and placement of the elemental forms of courtyard, arcade, iwan, dome, and minaret. However, the extent to which this can truly be called vernacular architecture is questionable in view of the importation of vaulting forms that had been previously been confined to Nubia; rather than being traditional, it has been suggested that they were in fact an invented tradition.[131] Even the material that Fathy was so proud of using, mud brick, was not one which was then in common use in Egypt outside of Nubia, and his refusal to engage with modern materials such as steel and concrete has limited the potential impact of his work.

As mentioned above, the success of Mario Rossi's designs led to their aesthetic being continued in the second half of the twentieth century by his successors at the Ministry of Waqfs. The Imam Hasan Mosque (1973) (see page 330) is related to this tradition, but its reduction of decoration, its bold simplification of forms, and their juxtaposition in new relationships lifts it above the bulk of other examples in this category.

Fethi's third category, the New Classic Islamic, varies from the second in the degree to which modern building materials and methods are used in its execution. At the small mosque (1959) beside the entrance to the Italian memorial at El-Alamein, the main forms, a low dome and minaret, are placed on opposite sides of a courtyard that has three round-headed arches on each side. The only exterior decoration is on the slightly battered walls: they are completely veneered with an irregular reticulated pattern that unifies the disparate elements. But the plain interior is an anticlimax.

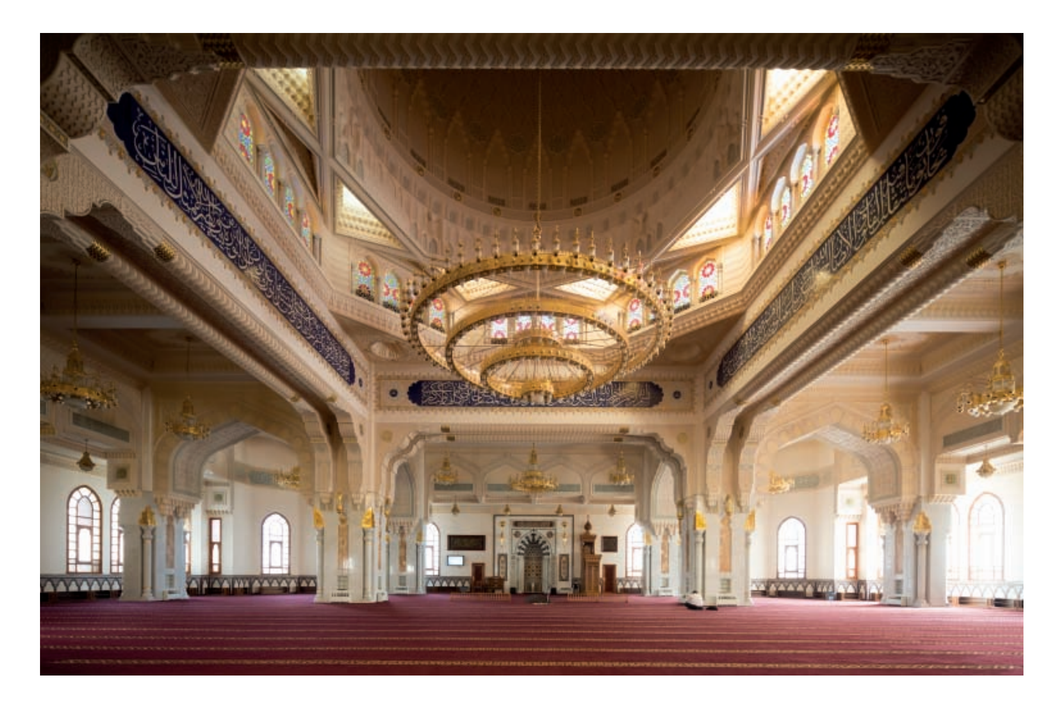
Several of the recent large mosques in Cairo might fit into this third category, although the extent to which any modern aesthetic is included is arguable. Some colleagues suggested the Cairo al-Rahman al-Rahim Mosque as one of the better examples. Its plan is a quincunx, dominated by the massive central dome. Even this is dwarfed on the exterior by the pair of four-story Neo-Mamluk minarets. Inside, however, the dome lours over the adjacent spaces: both the four massive supporting corner piers and the zone of transition seem squat beside the immense width and height of the cupola. As in many modern mosques dominated by a central dome, the mihrab area is relatively gloomy.



The mosque at the Italian memorial, El-Alamein (1959).



Exterior of the Mosque of al-Rahman al-Rahim, Cairo (Hassan Rashdan architects, 2003–2009)



Interior of the Mosque of al-Rahman al-Rahim, Cairo (Hassan Rashdan architects, 2003–2009)

Opposite top left: Shurta mosque, 6th October City (Hakim Afifi, architect, 2012)

Opposite top right: ~~Shurta mosque, Cairo (c. 2006)~~

Opposite bottom right: ~~Mosque of al-Ruwwad village~~



A more ambitious candidate in this category was the Jamiʿ al-Zahra, built for the campus of al-Azhar at the relatively new suburb of Madinat Nasr in Cairo.[132] The entrance is a *pishtaq* that recalls examples in Iran and Anatolia, with its twin minarets and semi-octagonal entrance leading to a squinch-net (part of a dome formed by intersecting arches). Also unconventional for Egypt are its round-headed arches, used throughout, and the employment of its most distinctive feature, the cross vaults that cover the interior spaces at three different levels and whose open sides flood the interior with light.[133] The massing of forms leads to the visual climax of the dome, whose rows of differently sized and shaped windows provide a satisfying decorative effect. However, the architect may have been compromised by his multifunctional brief: the interior spaces needed to be able to be partitioned so that they could function as classrooms when not being used for congregational prayer. But this necessitated the isolation of the prayer hall from the courtyard by doors, which in turn was accomplished by making the openings between the two lower than usual.[134] As a result, even when the courtyard is not closed off with the available doors, the vista that should obtain from the interior toward the qibla is compromised.

Thankfully, there are no contemporary mosques in Egypt that quite fit into the "Arabian Nights" category, but the number in the modernist camp is almost equally small. The unfortunate desire for originality at all costs is shown in two recent mosques, sponsored by the Shurta (the Police Force), in the center of Cairo and in an outlying suburb. Their form is amusingly similar to the characterization by Gulzar Haider of such cravings as producing "mosques with flying saucer domes and rocket minarets."[135]

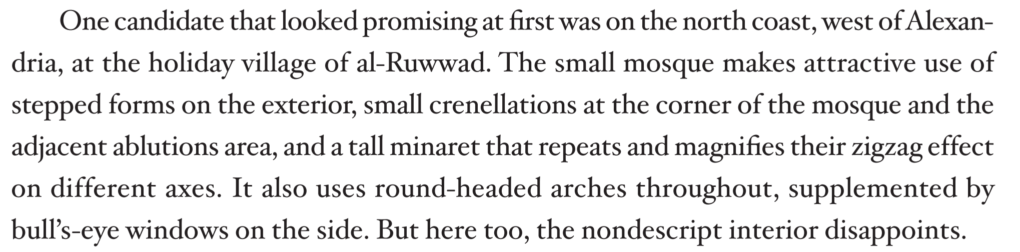


Jamiʿ al-Zahra, Cairo (Abdelbaki Mohamed Ibrahim, architect, 1995)









One candidate that looked promising at first was on the north coast, west of Alexandria, at the holiday village of al-Ruwwad. The small mosque makes attractive use of stepped forms on the exterior, small crenellations at the corner of the mosque and the adjacent ablutions area, and a tall minaret that repeats and magnifies their zigzag effect on different axes. It also uses round-headed arches throughout, supplemented by bull's-eye windows on the side. But here too, the nondescript interior disappoints.

Another interesting candidate was the small mosque at the International Garden at Alexandria (1990).[136] In plan, this was a rectangle situated within a narrow reflecting pool. The concrete frame was softened on the outside by crenellations and keel-arched brick infills, each with a narrow window in the center. The main lighting on the interior was through a narrow triangular skylight that ran the length of the roof. The herringbone pattern of the slightly sloping oak ceiling to either side softened the mostly plain plaster walls below. However, it is a sad commentary on the response to a building of such striking originality and unassuming repose that recently it should have been demolished and a more conventional mosque[137] built in its place.



The one example that I have included, the Hidayat al-Islami Mosque at Rosetta (see page 332), is in an unlikely provincial setting. The almost brutalist exterior is softened by planters and by careful attention to repeated forms at different scales. However, the architect may have tried to avoid the fate of the International Garden mosque by playing it safe with an interior that is more in the tradition of the conventional neo-Mamluk designs seen elsewhere.

Egypt and Cairo have long been at the geographic and cultural center of the Arab world. Cairo in the Middle Ages was, as it is today, one of the world's most populous cities. Unlike Baghdad or Damascus it was never sacked by invaders, and its primary position under the Tulunids, Fatimids, Ayyubids, and Mamluks has resulted in an architectural legacy unequaled in the Arab world. The momentum that this created meant that even under the Ottomans it was a prosperous center of construction and trade. Its resurgence as an intellectual and cultural center in the Middle East has continued from the time of Muhammad 'Ali to the present day. Even if the legacy of recent years is outshone by those of previous centuries, its panorama of mosques from the earliest days of Islam to the present is unrivaled.

The Mosques of Egypt